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## ABSTRACT

The hearing reported in this document was held to learn more about children's fears of war. Appearing before the committee were doctors, researchers, and child development experts whose testimony focused on what children worry about, the changing nature of children's fears of war, and the implications of children's attitudes for parents and society. Also heard were children, youth, and parents who voiced their concerns about nuclear war. Included in the document are papers and research reports, including (1) an exploration of some difficulties inherent in understanding possible effects of the threat of nuclear war on children, (2) a study of how children learn the principles of community, and (3) a study of children's responses to the nuclear arms debate. (RH)

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# CHILDREN'S FEARS OF WAR

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## HEARING

BEFORE THE

## SELECT COMMITTEE ON CHILDREN, YOUTH, AND FAMILIES HOUSE OF REPRESENTATIVES

NINETY-EIGHTH CONGRESS

FIRST SESSION

HEARING HELD IN WASHINGTON, D.C., SEPTEMBER 20, 1983

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# CHILDREN'S FEARS OF WAR

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TUESDAY, SEPTEMBER 20, 1983

HOUSE OF REPRESENTATIVES,
SELECT COMMITTEE ON CHILDREN,
YOUTH, AND FAMILIES,
*Washington, D.C.*

The committee met, pursuant to call, at 9:18 a.m., in room 2212, Rayburn House Office Building, Hon. George Miller (chairman of the committee) presiding.

Members present: Representatives Miller, Lehman, Schroeder, Boggs, Patterson, Boxer, Levin, Morrison, Rowland, Sikorski, Marriott, Fish, Coats, Bliley, Wolf, Burton of Indiana, Johnson, McKernan, and Vucanovich.

Staff present: Alan J. Stone, staff director and counsel; Ann Rosewater, deputy staff director; Judy Weiss, research assistant; Christine Elliott-Groves, minority staff director; Donald Kline, senior professional staff; and Joan Godley, committee clerk.

Chairman MILLER. The committee will come to order.

The purpose of today's hearing is to learn more about children's fears of war. In the last 6 months our committee has undertaken a systematic examination of the conditions in which our children, youth, and families live. We have been careful to look at trends as well. As a result, we know much more than when we began—about where we are and where we are going with regard to family structure, to the changing workplace, to the effects of changing economic and budget priorities on the emotional and physical well-being of families, particularly children.

Some of our findings have been deeply disturbing, particularly those which show a greater number of impoverished children and the declining number of resources available to them as they are growing up.

Our search for the best information, however, cannot and should not rest on demographic and economic data alone. Our efforts must also include a careful look at the attitudes current conditions have engendered in our children, youth, and families. Attitudes among children especially those reflecting anxiety over fundamental questions of existence, should help us better understand their behavior, their hopes, and their aspirations.

Unfortunately, because their parents often are fearful, and because they read the newspapers and watch television, children are aware of the horrible possibilities of modern warfare.

We have already heard from some of these children at our first hearing. Reed Claxton, age 11, summarized the concerns expressed in 40,000 letters delivered by Save the Children to the President.

He said, "One of the five things that concerns us most is atomic weapons." Camp Fire, Inc., formerly Camp Fire Girls, has passed a resolution promoting study groups on nuclear war. It is my understanding as well that the President gets 100 letters a day from schoolchildren concerned about nuclear war. I have personally received, and I am sure other Members have, scores of letters from schoolchildren in our own congressional districts.

In addition, clinical and survey evidence clearly reflect the extent to which children worry about the threat of nuclear war. This anxiety, much like any major anxiety, can interrupt the healthy emotional development of a child and affects a child's interaction with his or her family, especially if there is no positive outlet for that concern.

We know these principles of child development are universal and apply to all children regardless of political affiliation, race, or economic background and that is why this is not a partisan issue—neither liberal nor conservative, Democrat or Republican. It deserves the consideration and concern of all of us.

For these reasons, and consistent with our commitment to gather the best research information on children and their families, we have called today's hearing.

This morning we will be privileged to hear from a panel of preeminent doctors, researchers, and child development experts. They will tell us what children worry about, the changing nature of children's fears of war, and the implications of these attitudes for parents and for our society.

First, we will hear from some children who have been courageous enough to come before the Congress from across the country to share with us their concerns. We welcome all of you: Gerald, Ursell and Jessica. Jessica is joined by her father. He will share his experience as a parent responding to his child's fears. He will tell us about other families in Midwest communities who have contacted him since he left his job as a county civil defense director.

Gerald, I think we will start off with you.

I had a chance to meet Gerald in the office earlier this morning and he seemed very confident about testifying, so we are going to give him first chance.

Gerald, before we hear from you, I would like to give the ranking member of this committee, Mr. Marriott from Utah, a chance to make an opening statement.

## STATEMENT OF HON. DAN MARRIOTT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH

Mr. MARRIOTT. Thank you, Mr. Chairman.

Mr. Chairman, the minority Members have expressed objection to these hearings on several occasions and hope that our letter of September 13, 1983, could be submitted.

We are aware that some teachers are teaching children to play war games, those who are caught up in their antinuclear activities.

The minority's opposition to these hearings is not based on a lack of concern for nuclear war, we are all opposed to nuclear war.

The question is not the possibilities of war, the question is how to avoid war. This is not a foreign relations committee, however, and we don't have jurisdiction over foreign relation matters. We believe that using children as political pawns serves no useful purpose in these discussions.

There is a startling lack of reliable research on this subject. Prof. M. Brewster Smith from the University of California at Santa Cruz at a meeting of Physicians for Social Responsibility on October 9 said this:

> The first discovery I made when I tried to come to grips with (the psychological problems of children as a result of the threat of nuclear war) is how very limited and weak the available data are. There has been very little research on the impact of the nuclear age on children and youth. We need more and better data, and even with very good data, the causal interpretation of historical trends in this area will be difficult and inherently speculative.

We are not here, Mr. Chairman, to speculate or to hear speculation but to build a responsible and reliable data base.

Prof. Joseph Adelson, associate editor of the Journal of Youth and Adolescence for over 13 years and a member of the staff of Johns Hopkins University, said:

> Reviewing the literature and major texts in developmental child psychology and adolescent psychiatry, there is no mention of the fear of war or the fear of nuclear war as important in the development of children or as a source of psychiatric disturbance. To the contrary, the most recent study of children's ideas of death indicate that ideas of war and bombing are trivial as compared with other fears that children have.

Now we object to these hearings, Mr. Chairman, not because we are not concerned but because we think the resources of this committee could be spent in better ways. Hearings on the consequences of divorce are more prudent to the resources of this committee. Divorce, for example, is real to children, not speculative. Many children are experiencing daily the traumas of divorce. Experts say the primary fears of children in our society are related to the loss of family members by divorce, separation, and other causes.

How about child abuse and neglect and the sexual exploitation of children? Those are the subjects this committee should have jurisdiction over. Now 650,000 to 1 million children a year are injured or impaired because of some form of child abuse, it is the second leading cause of cerebral palsy, and more than 100 times more children are involved in abuse and neglect problems than the last polio epidemic of the 1950's.

How about subjects like child support, pornography, lack of positive role models, the problems of latchkey kids, drug abuse, the effects of TV, boredom in school, day care needs, foster homes, runaways? All of these are important areas, and to move this subject to the top of the list without a reliable database to support it poses us some problems.

When this committee was authorized, it was to be a factfinding committee, not a committee to speculate about problems for which we have very little reliable data.

Mr. Chairman, in the spirit of cooperation we on the minority will listen intently without bias to what is going to be said here today and we hope that the testimony today will be based on facts, not speculation or media hype, and not on politically motivated rhetoric.

I thank you for holding the hearing.

Chairman MILLER. Are there other members who have opening statements?

We must be out of this room by noon, so it is my intention to enforce the 5-minute rule with respect to members of the committee.

Mr. BLILEY. Mr. Chairman, I would like to make a statement.

Chairman MILLER. First the majority.

Mrs. Boxer.

Mrs. BOXER. Mr. Chairman, I really was not going to make an opening statement but I feel compelled to say a couple of quick things after hearing the distinguished minority member of this committee. I am very disturbed to hear the distress that he is feeling. I frankly don't understand it when we know in our surveys that children have defined the fear of war and nuclear war as one of their prime concerns. We know this through independent surveys, and as the mother of two children myself I know it through personal experience. I can tell you that I feel if Congress has any charge at all it is to make growing up in America a secure and optimistic process, so I think that this hearing today is really critical to our work.

Thank you.

Chairman MILLER. Mr. Coats.

Mr. COATS. Mr. Chairman, I can't help but express my disappointment in the subject matter of this hearing. When the idea of the Children, Youth, and Family Committee was first presented to Congress, many people expressed concern and outright opposition that the committee would not limit itself to legitimate pursuits but would be used as the forum to air particular political viewponts. At that time, I was serving on the Select Committee on Aging which had 59 members. Often only one or two members came to hearings because the committee purposes were misused. It had become a traveling road show and a media extravaganza. Members of both parties refused to participate in it.

But I spoke up for the formation of the committee on the family. I spoke on the floor of the House of Representatives, and urged my colleagues who had opposition to the committee to give it a chance. I indicated to them that I thought we would deal seriously with the problems that are today directly affecting our children, youth, and families. I indicated that we would not deal with hypotheticals, nor would we use it to advance political strategy.

We agreed at the beginning of the committee, I thought both sides had agreed, that we would use the first year to achieve relevant data about children, families, and youth. I thought that we would collect objective and unbiased data presented by experts and then, we would proceed to make recommendations, which could be used to formulate possible solutions to the problems that our youth and children and families are currently experiencing. But today, despite the vigorous objections of the minority and many letters and conversations that have been outlined to you, Mr. Chairman, we are moving ahead on the topic of the effect of nuclear war on children.

Is there any member of this panel or anybody in this room that has any doubt whatsoever about what the effect of nuclear war would be on children in this country or on adults in this country or on grandparents or on animals or plant life or anything else in this world? Is there any doubt? Do we need to sit here this morning and hear from children as to what the effect would be?

I think, Mr. Chairman, we have many more important things to be dealing with here. No one is denying the tragic consequences of nuclear war or any war but this committee does not have the jurisdiction to do anything about that. We are not going to hear this testimony and then write legislation that is going to outlaw nuclear weapons. We are not going to be able to affect the foreign policy of the United States or the Soviet Union or any other country. And, that is not our jurisdiction.

I think that holding a hearing on this topic this morning destroys the credibility of this committee. It fuels the fire for all those who say, "It is exactly what we told you." I had the fond hope that this would be turned into a standing committee with legislative writing jurisdiction. I think now we are throwing that opportunity away. I am embarrassed for the committee members on both sides. I am embarrassed for these children who have to come here and be used in this way, and I am embarrassed for those who have to participate.

Thank you, Mr. Chairman.

Chairman **Miller**. I hope those who have criticized this hearing most harshly will remain throughout the hearing, because I think they will see that this topic is of great importance to the lives of children and their families. To suggest that this is a trivial matter or that it is trivial compared to other matters, I do not think is accurate. I think they will discover in fact that there is hard evidence to suggest that this is a matter of considerable concern to the children.

The test of a hearing by this committee is not whether or not it will lead to legislation. We do not have such powers. Among our purposes is to gather the best available information, and I think at the end of the hearing we will see that the evidence presented is factual, and the impressions of thousands of children interviewed.

In our earlier report other members suggested that we should not rely specifically on demographics, but that we should strive to understand the human complexities of problems as well. I agree, and fear of war is a matter that for many children overshadows their daily life. Whether or not we can affect the foreign policy of this country is not the standard we should be guided by. The best test is whether or not the members of this committee will better understand and have a greater appreciation for one of the major concerns that children have.

As for the other topics suggested here today, many are now either scheduled or under negotiation. As for one on the priority topics mentioned—sexual exploitation of children—I would point out that the Child Abuse Act is now on the floor of the Congress, and we will all have an opportunity to vote on it soon.

I am concerned that this committee not act when matters of immediate legislative concern are before the appropriate committee of jurisdiction. Perhaps when that act is discharged and the Congress has worked its will, we may want to engage in oversight on a broader perspective. We certainly have the right to do that, but we should not lose sight of traditional legislative prerogatives. It is my hope that we all will sit back and listen closely to the witnesses. I think we will discover that in fact there is considerable food for thought here, and much for those of us in position to make public policy to ponder.

Mrs. **Schroeder**. Mr. Chairman.

Chairman **Miller**. Mrs. Schroeder.

Mrs. **Schroeder**. I would ask unanimous consent that the rest of us who have opening statements, would put them in the record. I think for us to recognize the fact that a third of the population in America is under the age of 18 and that this committee has a charge to listen to them. Today, we have young people here who want to talk to us about an important subject. One of the things that we worry about is how we motivate young people to prepare for the future. This is difficult when the world situation is so precarious that they say, "Why should we be motivated for the future, there may not be one. Let's move back to instant gratification."

I think we need to listen to them rather than spend our time arguing back and forth. If we need to do that, we should argue after the hearings are over. Therefore, I would hope that we would put our statements in the record and following the hearing we can debate whether or not we should have held this hearing. I think it is a relevant subject and I commend the chairman for bringing it forward.

Chairman **Miller**. The committee will hear first from Gerald Orjuela.

Mr. **Bliley**. Are you going to respond to the unanimous consent request?

Chairman **Miller**. I did not realize it was a unanimous consent request, I thought it was a recommendation from the gentlelady from Colorado.

Is there objection to including in the record at this point opening statements, so that they will appear prior to the testimony of the first witness.

Mr. **Bliley**. I have a right to object, Mr. Chairman. I was here at 9 o'clock and ready to go. We did not start until almost 20 minutes after 9 and I would like to make my opening statement.

Chairman **Miller**. The gentleman is more than welcome to do that. We started late due to technical problems encountered by the media.

Go ahead.

## STATEMENT OF HON. THOMAS J. BLILEY, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VIRGINIA

Mr. **Bliley**. Thank you, Mr. Chairman.

It is quite an understatement to say that we minority members are disappointed in the turn which the committee has taken with this hearing. After much talk about partisanship at the creation of the committee, I would be interested to learn the majority's definition of that word. Apparently one side may consistently ignore the unanimous objections of the other, carry on as if the other simply did not exist, and still consider itself to be following the spirit of bipartisanship. I can reconcile that behavior with my own definition of bipartisanship only if I yield to my suspicion that the majority failed to consult its own members as well.

Defense policy is not a proper subject for this committee, even if that policy is articulated by children. The rationale which argues otherwise can be used to show that almost any subject is proper to almost any committee. I do not believe that we are here today because children's fears of war are their greatest fear or their most potent fear. Clearly they are not.

Even our own committee report places chances of nuclear war fifth on the list of national problems which trouble high school seniors. If we take into consideration the fact that personal problems, such as the loss of a parent through death or divorce, are of far greater concern to children than national problems, and further, that younger children are less likely to be concerned with national problems than are high school seniors, we see that there is considerably less need for a hearing on children's fears of war than for a hearing on their many other very legitimate fears.

If, in this hearing, we are sincerely and primarily concerned with our children's fears of war and the adverse psychological effect of those fears, then we certainly ought to be concerned about the various nuclear war curricula which have been introduced in the classrooms across the Nation in just the last year. The best known of these curricula, a course developed by the National Education Association in conjunction with the Union of Concerned Scientists, has been described by an Education Department official as "an incredibly obvious drive to bring political indoctrination into the classrooms." I might add that the Washington Post shared that opinion in a recent editorial.

From the reactions of students to these curricula, it seems as if they are devoted to the work of immersing our children in emotions of fear, guilt, and despair. As one student put it after attending a course entitled "Decision Making in the Nuclear Age," "It was hard to handle. It is hard to spend 45 minutes a day talking about dying and it is depressing," I don't wonder.

Another child, a participant in the course, "Facing History and Ourselves," summed up what she had learned thusly: "I have learned that there is seldom a right or wrong but rather a right or left."

Students in these programs, which extend from kindergarten through 12th grade, are under pressure to explore all aspects of a nuclear explosion in all their grissly details. Games are introduced which have the sole purpose of reinforcing the idea of the hopelessness of any future war. Possibly these are healthy exercises for adults but they are hardly the measures which most parents would prescribe for their own children. Some children may indeed be able to handle this pressure but many more are not.

In closing I would like to introduce for the record some more material which I believe will help us to better understand the dangers of these courses. The first is an article written by Mrs. Charlotte Iserbyt, a former Special Assistant in the Department of Education; the second a recent address by noted psychiatrist, Dr. Harold Voth which will be available to us in a few days. I request that the record be kept open to receive it. Both Mrs. Iserbyt and Dr. Voth speak knowledgeably about the most popular nuclear war curricula and their psychological effects upon children.

Mr. **Bliley**. Finally I would like to introduce for the record and present for inspection of our committee members an example of just how far this business of scaring children has gone. This is a copy of a comic book published in San Francisco by an organization called Educomics. It is intended for use in the classroom. It is accompanied by a teacher's guide and lesson plan, and it is distributed at teachers' conferences throughout the United States. It is the true story of a young Japanese boy who lived through the bombing of Hiroshima. It includes vivid pictures guaranteed to keep your children awake at night. Anyone concerned with the fears of children ought likewise to be concerned with such teaching tools as this little book.

Thank you, Mr. Chairman.

[Opening statement and material submitted by Congressman Thomas Bliley follow:]

### Opening Statement of Hon. Thomas Bliley, a Representative in Congress From the State of Virginia

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I do not believe that we are here today because children's fears of war are their greatest fears, or their most potent fears. Clearly, they are not. Even our own Committee report (another "bi-partisan" effort) places "chances of nuclear war" fifth on the list of national problems which trouble high-school seniors. If we take into consideration the fact that personal problems (such as the loss of a parent through death or divorce) are of far greater concern to children than national problems, and further, that younger children are less likely to be concerned with national problems than are high-school seniors, we see that there is considerably less need for a hearing on children's fears of war than for a hearing on their many other very legitimate fears.

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Another child, a participant in the course, "Facing History and Ourselves," summed up what she had learned thus: "I have learned that there is seldom a right or wrong, but rather a right or left."

Students in these programs, which extend from Kindergarten through twelfth grade, are pressured to explore all aspects of a nuclear explosion, in all their grizzly details. Games are introduced which have the sole purpose of reinforcing the idea of the hopelessness of any future war. Possibly these are healthy exercises for adults, but they are hardly the measures which most parents would prescribe for their own children. Some children may be able to handle this pressure, but many more are not.

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Thank you.

Bangor Daily News

[illegible] Main St., Bangor, Maine [illegible] Friday, June 10, 1983

## Another viewpoint

By Charlotte Iserbyt

# Too high a price

*"Life used to be so easy. There always seemed to be an answer to everything. Everything fit into place, getting up at 7 o'clock, going to school at 8, coming home at 4, doing homework at 6, and finally going to bed at 11.*

*"In my tightly scheduled life I left no time to reflect. In these past four months, however, I've been forced to think. It hasn't been easy."*

This is a quotation from, "Student Journal Excerpts in Response to the Curriculum, Facing History and Ourselves: Holocaust and Human Behavior," a federally funded program for eighth and ninth grade students.

Any course that results in a 14-year-old feeling that way has got to be wrong. I think any honest child psychologist would agree with me that he who purposely disturbs the stability expressed so well in the student's first two sentences, may be guilty of child abuse.

My criticism of the program is in no way a criticism of the choice of the Jewish Holocaust as the subject. Any curriculum which, borrowing the words of those who professionally evaluated it, is "controversial and experimental," and clearly is designed to change students' attitudes on political and social issues, which used another holocaust, that in Cambodia, Tibet, or Afghanistan, would draw equal scorn and wrath from me. Any program which uses pre- and post-testing to evaluate student attitudinal outcomes presents problems for a free society.

The following quotations from, "Facing History and Ourselves: A Project Evaluation," by Professor Marcus Lieberman, Harvard Graduate School of Education, published in Moral Education Forum's 1981 special devoted to the program, support my contentions regarding the program:

"Furthermore, the effect of the program on students may not become apparent until considerable time after the completion of the unit. Nevertheless, *experimental* programs must be able to evaluate outcomes. This article summarizes the strategies we used to detect some of the effects of the *controversial* curriculum. During the first year of the FHAO program we wanted to 'cast the widest possible net' to capture changes in the students' moral, ego and social development.... Not too surprisingly, the junior high school students who took all these tests complained bitterly about the difficulty in answering the questions posed in the protocols. (It became particularly difficult to persuade those students who had experienced a unit on resistance to continue with the tests!)

"While the advantage of 'casting a wide net' to capture any changes had seemed like a reasonable approach, the emotional response to what students perceived as a high level of abuse had been unanticipated...."

The intent of the program is deceitful. Through psychological manipulation, frightening films, moral dilemmas (the use of Professor Kohlberg's Moral Reasoning-situation ethics); the use of the Milgrim "shock" experiment, lifeboat survival games,

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role playing, use of personal journals, group criticism sessions, etc., 14-year-olds' thinking is negatively influenced on the need to preserve our American system (preservation through clinging to time-tested values and through a strong national defense).

Students are taught to question everything. The "content themes" cover "concepts of power, authority, obedience, resistance, survival, prejudice, stereotyping, propaganda, judgment, individual and society, non-inevitability of history, knowledge, certainty, moral responsibility."

The educators are using the Holocaust for their own sinister purposes, and this is in itself shocking. To seize upon a tragic, unforgettable era in history as a vehicle to brainwash their young captive students in the need for tolerance of any lifestyle, any religion, any value system or political system except Fascism, and on the need for pacifism when it comes to defending their country, is totally wrong. I can't see how a 14-year-old could possibly survive this course, come out of it anything but confused at best, or alienated from our society at worst.

Young students don't have enough history to enable them to ask their teachers questions such as, "Might not a future holocaust (nuclear or communist enslavement) be avoided if the free world remains strong? Might not the Cambodian and Vietnamese bloodbaths have been avoided if the outcry from the universities, etc., had not finally influenced American foreign policy?" The developers of so much of the controversial curriculum, much of which is federally funded, are the very educationists opposed to a strong national defense, opposed to U.S. involvement in preserving freedoms in Latin America and the Caribbean, in favor of a freeze, and anxious to strip our nation of its sovereignty. (Remember the "Declaration of Interdependence" written by Professor Henry Steele Commager?) Their argument regarding the need for pacifism and disarmament is faulty, unless they truly believe it is "better to be red than dead," in which case they seem not to be concerned one bit over the likelihood of a communist holocaust, a preview of which has been given all of us by Alexander Solzhenitsyn in his "Gulag Archipelago" and other novels. It is for this reason — their faulty argumentation — that I suspect their motives for this course. In my opinion, the only goal of this course is to make our children receptive to the idea of disarmament in a socialist world government. This, they believe and teach our children, would be preferable to a nuclear war, which they repeatedly refer to as another inevitable holocaust. They successfully instill in their students confusion over values which will affect their ability to make rational decisions at the ballot box. In 104 pages of journal entries, at least one half of them reflect how guilty, fearful, desperate, and confused the students feel after going through the course. No matter what page one turns to, one finds 14-year-olds' quotations similar to the following: "I feel as though something I have had all my life has been taken away from me, something that can never be totally restored. I almost feel that I need it back because I feel so awful without it.... We all in our struggling humanity have to clutch our eyeballs to keep out the cold light of despair....

"The most meaningful parts of the book (Elie Wiesel's 'Night') to me were when the boy stopped believing in God, and when the father was dying....I think that maybe my faith is waning, a little, just from reading about it....Unfortunately, this book will always be tucked in my memory. I want to forget," or "I'm conscious of having changed in the strength of my convictions on many of the ethical dilemmas we've confronted. But in other ways I'm less sure of myself and more introspective. Where do I draw the line between right and wrong...."

"We probed questions that had no right or wrong answers and I became more and more confused as to how I stood on several issues," or "Seeing how other people think and express their opinions I have learned that there is seldom a right or wrong but rather a right or left...."

The conclusion to the "Journal Excerpts" consists of the following quotation, not from a student, but from someone named Terrence Des Pres: "And for all their shock and depression and yes, also their tears, what emerges finally are things so finally human, things so clearly good and life enhancing, that the danger we run and the damage we share in meditation on the Holocaust seem not too high a price to pay."

As a parent, I object to the public schools feeling it is important to shock and depress my children, or to bring them to tears, no matter how noble the purpose. I don't pay taxes to have the public schools take risks with my children who are captive in the classroom.

"The danger they run and the damage they share" is too high a price to pay, and anyway, the educators never have to pay the price for their miseducation of an experimentation with our children. We parents and our children have paid the price far too long.

*Charlotte Iserbyt, a resident of Camden, is a former special assistant in the U.S. Department of Education.*

## THE PSYCHOLOGICAL EFFECT OF NUCLEAR WAR COURSES

(By Harold M. Voth, M.D.)[1]

I have been asked to explain the probable effects which certain classroom topics and exercises are likely to have on young people. Specifically, I have been asked to review the materials (curricula) a number of groups are distributing throughout our public school system. The organizations and the curricula they are distributing are:

A Day of Dialogue by Educators for Social Responsibility, Cambridge, Mass.;

Decision Making in a Nuclear Age, Box 590, Cambridge, Mass.;

Choices, a Unit on Conflict and Nuclear War, produced by the NEA and a Group of Scientists, Cambridge, Mass.;

Crossroads, Quality of Life in a Nuclear World, produced by Jobs with Pence, Boston, Mass.

Moral Education Form, Hunter College, N.Y.; and

Facing History and Ourselves, Boston, Mass.

The avowed purpose of these groups is variously stated as: (1) an attempt to allay the fears and despair of the young by showing that adults are attempting to solve the difficult issue of nuclear threat and war; (2) to help young people visualize nuclear reality in a way which is non-threatening, thereby preparing them to ultimately set us free from the threat which endangers the future of the world; (3) inform the young on issues of nuclear war and military spending and help them overcome feelings of helplessness and powerlessness; (4) provide a basis for moral development; (5) to instruct students on the abuse of power, obedience, loyalty, decision-making and survival as they further develop their notions of justice, to learn to reason and think about the abuses of civil liberties and the freedom to think. This is an ambitious undertaking to say the least.

After spending some time studying these curricula, I have come to believe that their true purpose is to change the student's attitude and behavior to conform to the author's beliefs about national and international issues, war, the nuclear threat, and so on. I will elaborate on that point because I believe the implications are rather far-reaching, and then I will discuss what the students are being subjected to and what the consequences are likely to be for the student and our society.

I have elsewhere written and spoken on the devitalization of America, on the changing American character and the weakening of the American spirit, and I believe the topic we are examining today is another manifestation of that downhill process. Inasmuch as the vitality of a society is a reflection of the aggregate vitality of its members and the way the society is organized, an analysis of a nation's vitality must include a careful inspection of what happens to the young during their developmental years. These crucial years shape personality and determine to a large extent how much the individual contributes to society. If home life is good, if the child's family is intact and he receives good mothering and good fathering, chances are that child will become an adult who can masterfully handle the problems of life and leave his mark. The school experience is also a central factor in the child's later effectiveness as an adult.

As you know, family life in our society is deteriorating at a terrifying rate. The divorce epidemic is the major factor for this deterioration, but the mass exodus of women from the home, often due to economic pressure but also and probably largely to the seductive but false drumbeat of the women's lib movement are major determinants of this deterioration.

The developing child pays the highest penalty for the breakup of the home, the part-time or the pathological home. Instead of facing the adult world with courage and the anticipation of finding opportunities and fulfillment, he will in all probability be impaired with one or more psychological deficits of varying degrees of severity. Before they grow up they will occupy the classroom. What they experience there can have a powerful impact on their current and future psychological condition and life adjustment. Indeed, the teachers can be a marvelous developmental stimulus for the child or a growth inhibiting or growth disturbing influence. For some children, the school experience is like a psychological hot lunch which can substantially fill the inner voids of the child.

Our nation is already filled with people of diminished vitality whose contributions to society will never reach the level it might have been had their home life been of a higher quality and greater quantity. Millions of our children will one day swell the ranks of these adults. It is imperative, therefore, that their school experience make up as much as possible for the deficits in their lives. Children need the best possible preparation for the responsibilities which will fall to them as they enter adulthood, and they should be launched into the future in a spirit of appropriate optimism and hope.

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[1] Chief of Staff, VA Medical Center, Topeka, Kans; Clinical Professor in Psychiatry, University of Kansas College of Health Sciences, Kansas City, Kans.; and Faculty, The Karl Menninger School of Psychiatry, Topeka, Kans.

The worst possible mental state for the child is one of despair and hopelessness. When children are burdened by these feelings, they do not learn well nor do they traverse developmental and social challenges nearly as well as if they were cheerful and optimistic. Because the home life of millions of this nation's youth is fragmented or in some instances hardly existant at all, I am certain many children are troubled by these heavy feelings. A good school experience can do much to counteract these negative mental states. It is therefore imperative that responsible adults carefully monitor the events within the school. Put very simply, a good school experience can substantially offset a bad home life.

What I see in these curricula is a subtle defeatist stance being touted to the young, many of whom are already impaired by their own internal difficulties. Even the healthiest child can be adversely influenced by such material. All that can emerge from such classroom exercises is an attitude of hopelessness and defeat. The very nature of the subject depicts mankind at its worst. How can young children possibly view life with an attitude of hope after such exposure?

In addition to the direct impact of exposure to the most violent and/or degraded forms of human behavior (the Nazi concentration camp), the tactics or exercises of these programs will also have a destructive impact on the child, in my opinion. The implicit and nearly explicit challenge which is given to the children as they engage this material is for them to respond with solutions. It is human nature to attempt to arrive at solutions when presented with problems. Quite expectedly, therefore, students will attempt to arrive at solutions. The end point of all of these exercises is a blind alley for there are no solutions for the young to find. The sense of frustration can only be great for those who take these curricula seriously. When there are no solutions to life's problems, despair eventually follows and then comes a sense of defeat and depression. I can see no other end point for those youngsters who are exposed with this material.

The exercises themselves are often extremely complex in their focus; and all of them imply that if the student doesn't figure it all out, the bomb will eventually go off. Children should not be subjected to such nonsense. Their view of life can only be bleak, in fact, many report developing feelings of fear and despair after exposure to this material. Predictably so. Such exercises will seriously aggrevate the sense of dispair many young people already feel about life.

Each of the nuclear war courses requires the students to keep a journal of his thoughts and attitudes about the course. The following quotations are from those student journals, as quoted in the printed materials for the nuclear war curricula.

"I am very scared, very, very scared. Because with a nuclear war you don't have a chance to survive." "These days, I just try not to think about my future, because I have a hard time seeing one. There aren't any jobs and there isn't any money for me to go to college. I want to do something with my life, but who cares about me? Besides, we're all going to be blown up anyway." (CR)

"Some of the discussions we had got 'pretty heavy,' and it was hard to handle! It's hard to spend 45 minutes a day talking about dying, and it's depressing!" "Several students began to cry. 'No, no,' they yelled, covering their ears. 'We'll all be dead. It's no use. We're doomed." (DMNA)

"I went into this class planning not to allow it to change my thinking toward the arms race and military spending. However, to my disappointment, at the end of the class, I have to admit to a degree it has been effective. My point of view of staunch need for arms has changed to a wishy-washy feeling." (DMNA)

"I have learned that there is seldom a right or wrong but rather a right or left." "I'm conscious of having changed in the strength of my convictions on many of the ethical dilemmas we've confronted. But in other ways I'm less sure of myself and more introspective. Where do I draw the line between right and wrong?" (FHAO)

"I feel as though something I have had all my life has been taken away from me, something that can never be totally restored. . . . . I almost feel that I need it back because I feel so awful without it. We all, in our struggling humanity, have to clutch to our eyeballs to keep out the child light of despair." (FHAO)

"The most meaningful parts of the book [Elie Wiesel's NIGHT] to me were when they boy stopped believing in God, and when the father was dying. I think that maybe my faith is waning a little, just from reading about it. Unfortunately, this book will always be tucked in my memory." (FHAO)

"We probed questions that had no right or wrong answers and I became more and more confused as to how I stood on several issues." "Even in this seemingly perfect country we are cruel. We are hateful. We are obsessed with ourselves." "What I did learn will probably change the way I think and look on life for the rest of my life." (FHAO)

It is a well known child-development principle any sensitive parent and/or teacher understands, to not expose children to learning or developmental taks which are too much for them. Challenge the child, but do not overwhelm him. These programs can only overwhelm the child.

In addition to the immediate despair generating impact on the child, I think it is highly probable that there will be other long-range effects exposure to this material will bring about. The first is a sense of revulsion to force, and eventually a reaction to a stance of passivity. This process which is technically referred to as "reaction formation" is applied to the development of a trait or attitude which is the opposite to a feeling, interest or impulse but which is felt as bad or unacceptable. For instance, children who are exposed to sex prematurely or excessively often turn into sexless beings or become excessively puritanical. Hostile impulses and aggression which is believed to be bad can lead to extreme passivity of character.

Bluntly put, these programs can only scare the wits out of young people, challenge them with unsolvable problems, provoke a reaction of despair and hopelessness, ultimately lead to a sense of hopelessness about the future and possibly result in a reaction to aggression of any kind. Remember, there is nothing inherently evil about force or aggression—rather, the purpose for which aggression is used can be evil. Children may not and probably cannot grasp that distinction. Even mature men tend to renounce all aggression after prolonged exposure to it. A few children might become excessively aggressive as a reaction to this material.

Of course, the nuclear threat to mankind must be removed, but to expose millions of children to the horrors of a nuclear war thereby promoting a massive response of registration, defeatism, and reaction formation can only substantially add to the devitalization of that nation.

Now to state the obvious. If the world's greatest statesmen are having difficulty solving international relations and removing the threat of nuclear destruction, how in the world can anyone in their right mind expect children to make constructive contributions to these grave issues, especially when such a high percentage of those children are already troubled within themselves and do not live within a solid, secure home. The most psychologically secure child, from the most stable and secure family is no match for the overwhelming issues being presented to them. Even the healthiest children are also very likely to react with despair. To repeat, the content of these courses can only lead to fear, despair and hopelessness. Those mental states will receive a powerful reinforcement when the child fails to produce solutions for the nuclear threat and the darker side of man's nature (Holocaust).

International relations require courageous, strongwilled, reasonable, rational people to be able to adequately represent their country. Had Hitler been properly confronted early in his reign, World War II would probably have been avoided. Therefore, our young people deserve the kind of input during their developing years so that strong, courageous leaders will emerge from their generations who can represent the United States in international matters. Furthermore, there must be sufficient numbers of such citizens to provide the mandate for those leaders. A weakened people select weak leaders. You all know what has happened to our country when in the hands of weak leaders.

I know nothing of the backgrounds of the propagators of the materials we are discussing today. After being in my field for thirty years, I can state unequivocally that personality factors have a powerful impact on career choices. A special kind of personality is required to be able to stand firm during tough negotiating processes. What a person is determines to considerable extent what he believes, and what he believes determines what he does. This very simple formula accounts to a large extent for career choices and the ideology one adheres to within that career. Obviously, the creators of the programs we are examining would not do well as statesmen or disarmament negotiators, but they are nevertheless influencing children, some of whom may represent their country in such encounters.

The materials I have looked over seem clearly to me to suggest that military people are bad and that the Pentagon is occupied by greedy, power hungry monsters and that these elements must be removed from our society. The protective function of the military for our country and other countries is overlooked. The implication is that if we will lay down our arms the world will be a safe place in which to live and prosper. Perhaps the world will some day be such a place, but it is not such a place now.

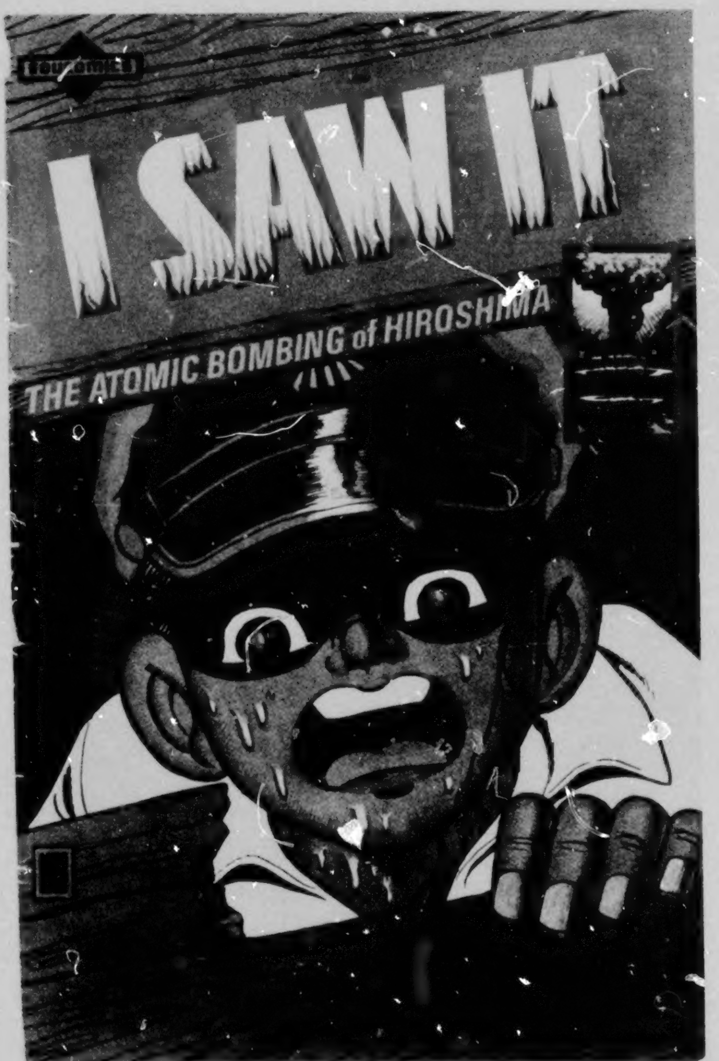
It has been noted by very experienced statesmen and military men that if a nation has a super weapon it will use it if pressed to the wall. The mass killing of civilians in World War II through bombardment is an example. Unilateral nuclear disarmament assumes the other side would exercise self-restraint. They might initially, but the events of history strongly suggest that use of nuclear bombs would be employed just as improved weaponry has always been eventually used. The approach of a gradual bilateral de-escalation and disarmament makes much more sense to most experts.

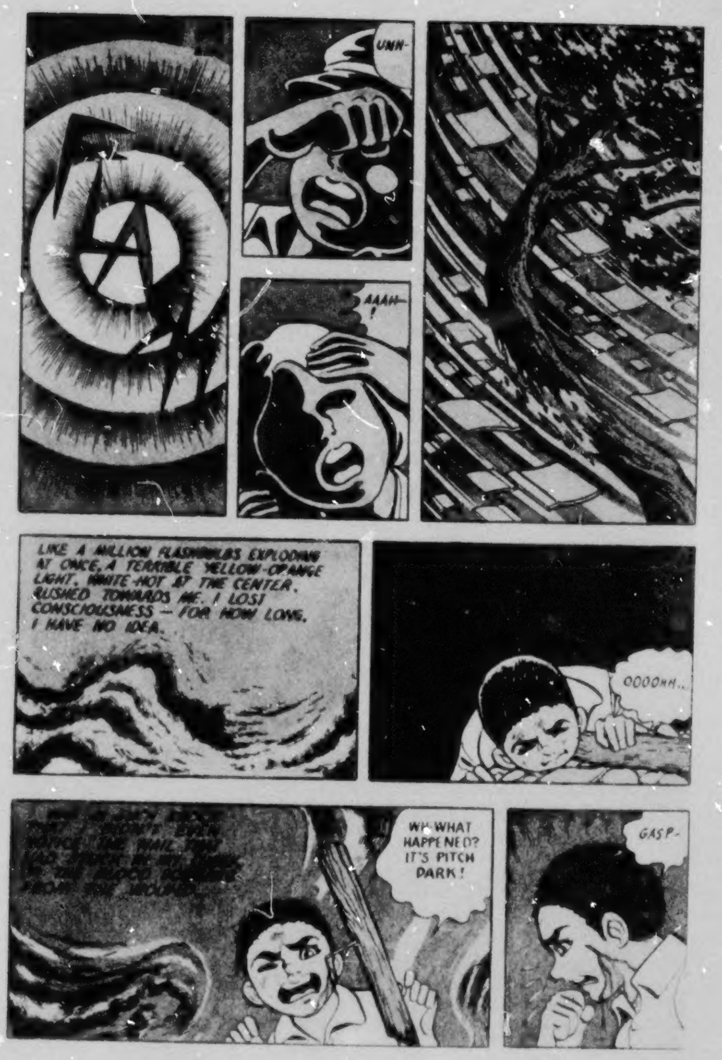
Some historians have attributed part of ancient Rome's downfall to the Christian influence, of the impact of the teaching to love your enemies, of forgiveness, etc., in relation to the barbarians who were progressively destroying the empire. This may sound shocking at first, but bear in mind that Christian principles only work if the other side is capable of understanding them and willing and able to respond to them. I am reminded of a very religious man who attempted to demonstrate God's protectiveness to his small son by thrusting his arm into a lion's cage. The lion ripped off the man's arm. Some of our adversaries are about as reasonable as that lion.

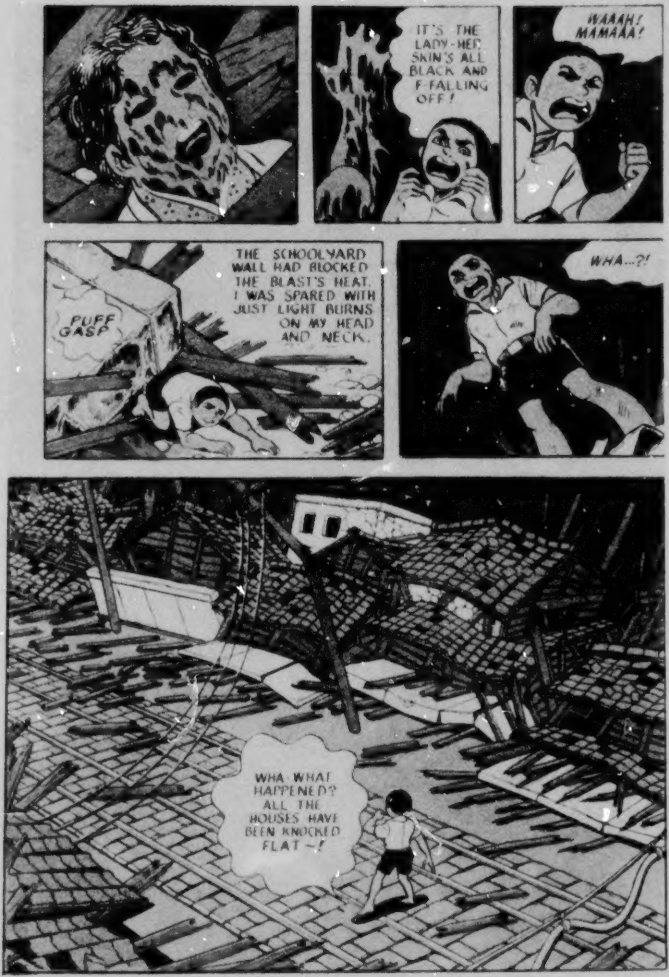
Perhaps our adversaries would respond to a softened negotiating stance or to unilateral nuclear disarmament. Perhaps they would follow the patterns of our citizenry who have been traumatized during their childhood by educators and others who simply are off the wall in their approach to international issues. I doubt it. I think we would be overwhelmed in short order as the hordes crossed our borders (just as the barbarians did in Rome) into our fertile lands and as the military establishments of our adversaries polished us off. The approach of a gradual, bilateral de-escalation of the nuclear threat and disarmament is, in the minds of most, the best approach.

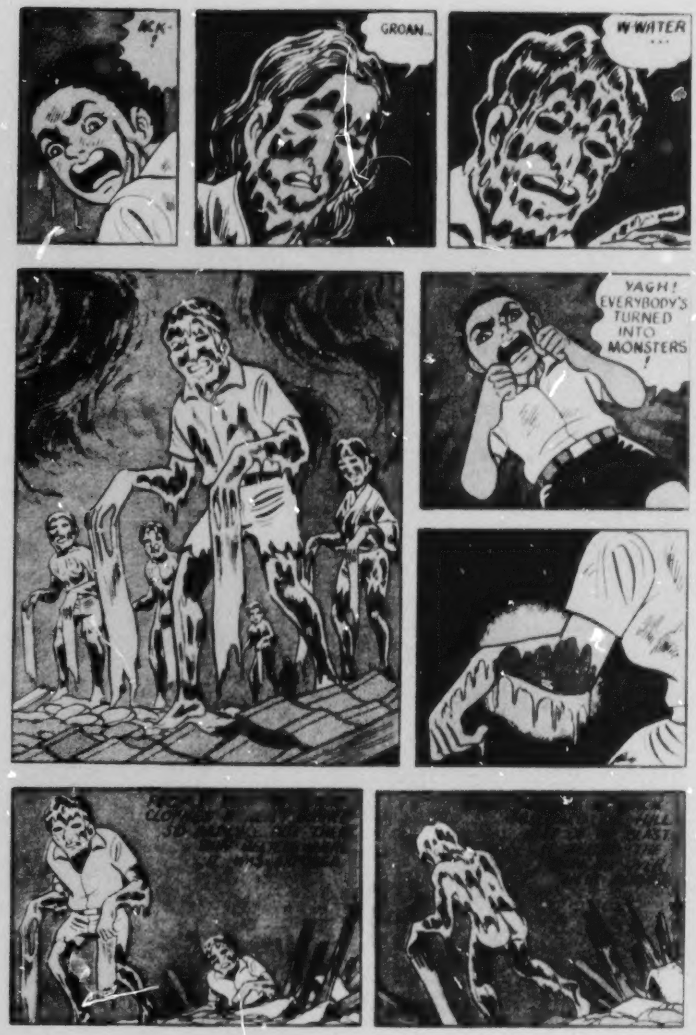
I think the nuclear dilemma will be eventually solved. I do not think we will blow each other up. One thing I know for certain is that the negotiations which will eventually lead to this happy day will never succeed if we populate our nation with devitalized people and fill them with despair about the future during their developmental years.

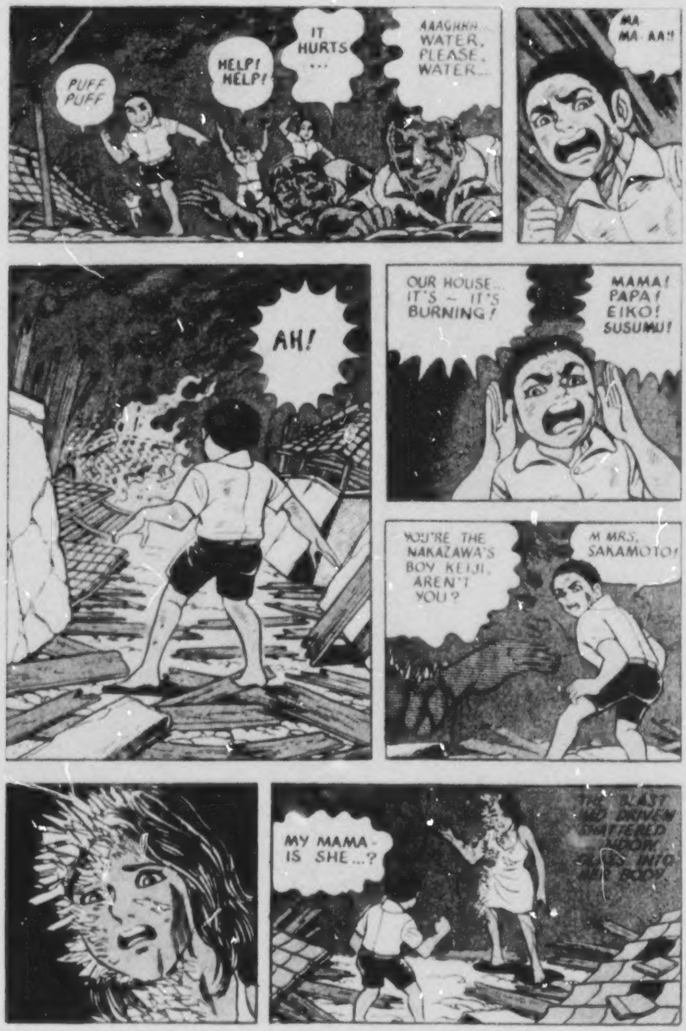
We should provide good family life, teach our children all we possibly can as they grow up, so they can eventually master the challenge of life. They must learn the basics first and then the more difficult field later, after having achieved the maturity to comprehend them. Then as adults they will possess sufficient courage and knowledge of the human condition to enter into negotiations with other nations—not from a position of passivity, despair, fear and trembling, but from a position of courage, reason, strength, competence and hope for the future.

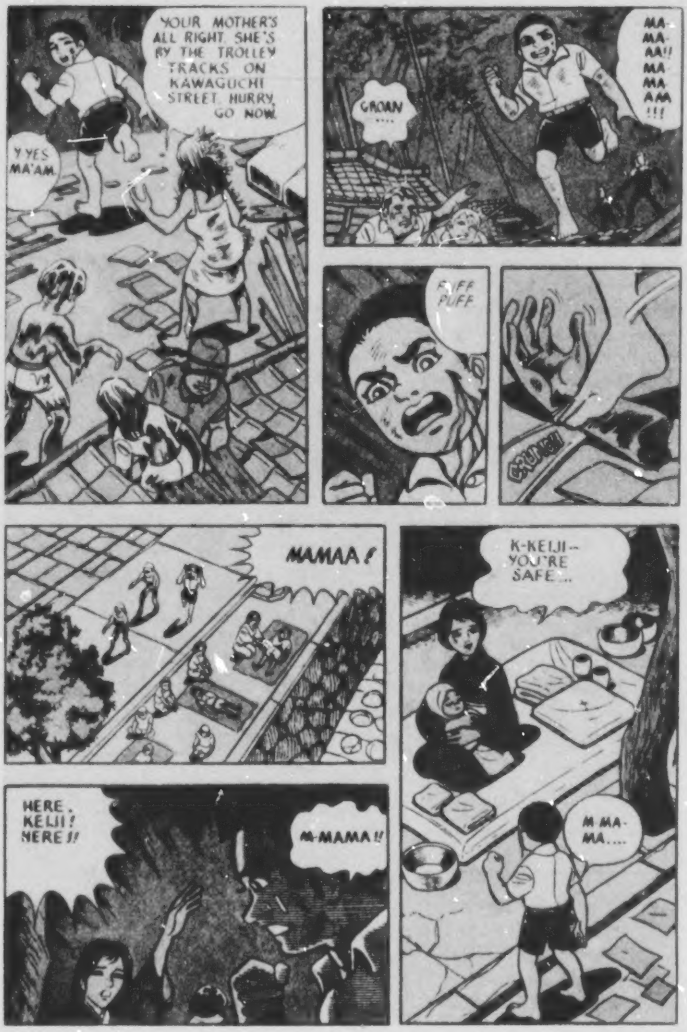

EDUCOMICS
I SAW IT
THE ATOMIC BOMBING of HIROSHIMA


FLASH
UNN-
AAAH-!
LIKE A MILLION FLASHBULBS EXPLODING AT ONCE, A TERRIBLE YELLOW-ORANGE LIGHT, WHITE-HOT AT THE CENTER, RUSHED TOWARDS ME. I LOST CONSCIOUSNESS — FOR HOW LONG, I HAVE NO IDEA.
OOOOHH...
WH-WHAT HAPPENED? IT'S PITCH DARK!
GASP-


IT'S THE LADY-HER SKIN'S ALL BLACK AND F-FALLING OFF!
WAAAH! MAMAAA!
THE SCHOOLYARD WALL HAD BLOCKED THE BLAST'S HEAT. I WAS SPARED WITH JUST LIGHT BURNS ON MY HEAD AND NECK.
PUFF GASP
WHA...?!
WHA-WHAT HAPPENED? ALL THE HOUSES HAVE BEEN KNOCKED FLAT—!


AKK-!
GROAN...
W-WATER...
YAGH! EVERYBODY'S TURNED INTO MONSTERS!


PUFF PUFF
HELP! HELP!
IT HURTS ...
AAAGHHH... WATER, PLEASE, WATER...
MA-MA-AA!!
AH!
OUR HOUSE... IT'S – IT'S BURNING!
MAMA! PAPA! EIKO! SUSUMU!
YOU'RE THE NAKAZAWA'S BOY KEIJI, AREN'T YOU?
M-MRS. SAKAMOTO!
MY MAMA-IS SHE...?
THE BLAST HAD DRIVEN SHATTERED WINDOW GLASS INTO HER BODY.


YOUR MOTHER'S ALL RIGHT. SHE'S BY THE TROLLEY TRACKS ON KAWAGUCHI STREET. HURRY, GO NOW.
Y-YES MA'AM.
MA-MA-AA!! MA-MA-AM!!!
GROAN ....
PUFF PUFF
CRUNCH
MAMAA!
HERE, KEIJI! HERE!!
M-MAMA!!
K-KEIJI-- YOU'RE SAFE...
M-MA-MA....

Chairman **Miller**. Any other statements by members of the committee?

If not, Gerald, once again we will attempt to receive your testimony.

Gerald is 12 years old and he goes to public school in Brooklyn.

Gerald, welcome to the committee. You have a written statement, and it will be made a part of the record. Please proceed in the manner in which you are most comfortable. If you would like to read your statement, you go ahead and do so. If you would just like to talk to the committee, you feel free to do that also.

## STATEMENT OF GERALD ORJUELA, AGE 12, BROOKLYN, N.Y.

Mr. **Orjuela**. Thank you, Mr. Chairman.

Good morning, parents and distinguished Representatives of the United States of America. Before I begin I would like to say how honored I am for you to let me present my material to you.

I assume you are all sensible people, since it requires great intelligence to be elected to a highly important part of our Nation. Other nations have their intelligent people. I'm sure Yurio/Andropov is intelligent. Ronald Reagan, our President, is intelligent.

But why, instead of using our intelligence for good uses, like peace, for example, we use our intelligence for war? Is it right to call having missiles in Europe peace? Is it right to call a nuclear missile "peace keeper"?

This is a waste of intelligence. We are criminalizing Newton, Dalton, Einstein, Lucretius, and Democritus, great pioneers in the Atom. What would Einstein have thought of this?

It is senseless to waste money on a missile. There are no winners in nuclear war. A one-megaton bomb exploding at ground level during a nuclear war in Racine, Wis., would have a radioactive cloud reach New York in a week. But by then, New York would have been vaporized long before Racine was.

Why can't we live in a world with only one rule—peace? Sometime in October of last year, I saw a PBS, channel 13, presentation of a movie made by the Japanese after the bomb had hit. Parts of people literally melted under the blast. A bone was sticking out from the socket where there once was an arm. The shadows of people left imprinted on the floors and walls when the heat flash vaporized them. Pitiful piles of entrails that were once known as human beings. That was a 25-kiloton bomb.

Now nations have arsenals made of more than 15,000 warheads, mostly thermonuclear, each one 50 times more powerful than the one over Hiroshima.

Simple in design. At high temperatures, the two forms of "heavy" hydrogen, deuterium and tritium fuse to form the heavier element helium. Great energy is released. That can be heard in any serene junior high school. But no matter how simple it is, it's deadly. Any country with the capabilities can do it, and so a lot of countries have it. That is frightening.

That is when children, like me, come in. We are frightened that a lot of countries have the bomb. We are frightened that we might be hit. You are parents. Let your children live, and let our children live. If you kill a child, you really kill two—us as children, and us as adults with children. We must understand that anything nuclear—a plant, a missile, a war—is something very dangerous, we cannot yet safely operate the first. We cannot control the second and no one wins the third.

A nuclear war is a time bomb. Time is running out. Let adults, children, and the nations of the world fight and work together to defuse this time bomb. The wire that we need to cut is visible. But to cut the wire we need the clippers. If we work together, the clippers are in our hands; if not, time will terminate—and so will the world.

If you don't listen to the adults, please in behalf of the children of the world, I beg you, give yourselves and us a chance.

Thank you.

Chairman **Miller**. Thank you, Gerald.

[Prepared statement of Gerald Orjuela follows:]

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Chairman **Miller**. Next we will hear from Jessica Fiedler from Muscatine, Iowa.

## STATEMENT OF JESSICA FIEDLER, AGE 11, MUSCATINE, IOWA

Miss **Fiedler**. I think instead of worrying much about nuclear war, we should do something about it, but I'm still scared. It's scary to think about the world being destroyed and nothing is left.

Some people say you can live through a nuclear war. Maybe a few people would, but when they run out of food, they can't go to the local supermarket, it won't be there.

Think of all the new babies that are born, they won't have a future if there is a nuclear war.

A lot of kids are scared because they might not have a future because of nuclear war. I want a future, too.

I think we should put a freeze on nuclear weapons and think what a nuclear war would do.

Thank you.

[Prepared statement of Jessica Fiedler follows:]

### Prepared Statement of Jessica Fiedler, Muscatine, Iowa

How I feel about nuclear war.

I think instead of worrying so much about nuclear war, we should do something about it. But I'm still scared.

It's scary to think about the world being destroyed, and nothig is left.

Some people say, you can live through a nuclear war. Maybe a few people would, but when they run out of food, they can't go to the local supermarket, it won't be there.

Think of all the new babies that are born, they won't have a future, if there's a nuclear war.

A lot of kids are scared because they might not have a future, because of nuclear war.

I want a future too.

I think we should put a freeze on nuclear weapons, and think what a nuclear war would do.

Chairman **Miller**. Ursell Austin.

## STATEMENT OF URSELL AUSTIN, AGE 16, OAKLAND, CALIF.

Miss **Austin**. Congressman Miller and members of the House Select Committee on Children, Youth, and Families. My name is Ursell Austin, and I am a 16-year-old student. I live in Oakland, Calif., where I am a high school student and a member of the St. John Missionary Baptist Church. I am honored to be here today to talk to you about my experiences growing up with the threat of nuclear war. I am very happy this hearing is happening, it helps to restore my faith in government that politicians care enough to hear from young people.

I remember the first time I heard about nuclear bombs was on television. I was home one Saturday and there was nothing much on, so I turned to this program on Hiroshima. This was about 2 or 3 years ago. It showed what happened to the people and the land when the bomb was dropped. I was completely shocked when I saw it. It looked so weird, like the whole city was black and scorched. People were walking around burnt to a crisp and looked like they were in pain, but they didn't say anything. I guess they were in shock. I just couldn't believe that such a horrible bomb was dropped on innocent people—mostly women and children.

The schools I went to never talked about nuclear weapons or Hiroshima or the arms race. I think maybe teachers were afraid to talk about it. It made me think it just wasn't a big deal to them, or it wasn't important, or they were afraid. But that seemed strange to me. I think other kids should know both sides of the nuclear issue, and know them clearly. I believe that if they had a way to understand and discuss both sides, they could make up their own minds. It's not like we don't hear about nuclear weapons. It's on the news, it's in the papers, it's on television. But people act like we aren't supposed to talk about it.

I think about the bomb just about every day now. It makes me sad and depressed when I think about a bomb ever being dropped. I hope I'm with my family. I don't want to die alone. I think about it most on sunny days when I'm having a good time. I think—it could happen right now.

I thought about it when I was going to camp, because I kept thinking what if a nuclear war happens when I'm away from home and away from my family. I was afraid of coming back from camp and there would be nothing left.

I also used to think about it when I was at a school that was built on two levels—an upper level and an underground level. When I was in the classrooms underground I'd think about the building crashing down on me and suffocating me if a bomb dropped. I would think that all the air would be sucked out of me, and I'd burn up under the rubble.

One of the things I think about is what it would be like when a warning comes. I would try to get my family together and go to my grandmother's house where we could hold each other tight and pray. I don't want to be warned. I don't want to know it is about to happen. If it is going to happen, I want to be killed right away. Being alive during or after the bomb would be the most frightening of all. I think surviving would be worse than dying.

It scares me about my future. I get angry when I think about maybe not being able to have a career; that my plans just wouldn't get a chance to ever happen. I want to be a midwife and help bring life into this world but I might not get the chance. I really want to have children and a family some day, but then I'd feel fear for them, too. It makes me wonder whether I should have kids at all. I'd be so scared for my baby.

I want to live longer, but at least I've had this long. I feel the worst for the little children. It's not their fault that governments can't find a way to solve their problems. They are so young and innocent and haven't had much of a life yet. I have a 7-year-old sister that I love a lot. One day I was trying to imagine a safe future with no nuclear weapons in it. I would see myself telling my little sister that she would grow up safe. It seemed so peaceful. I cried. It still makes me cry to think about it.

It seems to me that we shouldn't be spending so much money on more nuclear weapons when we already have enough to destroy every person on Earth. The money we are putting for nuclear weapons should go for other things. When we go to county hospitals, we have to wait for hours and hours to see a doctor because there isn't enough money for good health care. Old people have trouble living on social security. The county mental hospitals have to turn people away and onto the streets. I know, because I meet them on the streets. Our schools don't even have enough money for books. It's hard to do your homework when there aren't enough books so you have to share and can't take the books home with you to study. So when I hear how much it costs to build nuclear weapons, it just doesn't seem right to me.

A lot of times people think of teenagers as bubbleheads, that we are just interested in playing video games, getting dates, or going ice skating. That's not fair. We are concerned about what is happening in our world. We care about more than just whether we get a job. We care about the fate of the world. Soon we will be adults who can vote. Our schools should be places where we can learn about important issues, and discuss them, where we can learn about the things that prepare us to be involved citizens.

When I first thought about coming to testify before this committee, I was really nervous. Then I thought to myself that in a nuclear war all of you and your children will probably die, too. I decided that maybe I had something important to tell you about what it is like for kids growing up with the threat of nuclear war. It's hard to live with the possibility that we might not ever get a chance to grow up. I think the arms race has gone too far. I hope you will open your eyes and your minds, and stop the arms race before it is too late for us.

Thank you.

Chairman MILLER. Thank you.

[Prepared statement of Ursell Austin follows:]

### PREPARED STATEMENT OF URSELL AUSTIN, OAKLAND, CALIF.

Congressman Miller and members of the House Select Committee on Children, Youth and Families. My name is Ursell Austin, and I am sixteen years old. I live in Oakland, California where I am a high school student and a member of the St. John Missionary Baptist Church. I am honored to be here today to talk to you about my experiences growing up with the threat of nuclear war, and I am very glad this hearing is happening. It helps to restore my faith in government that politicians care enough to hear from young people.

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Chairman **MILLER**. Jessica Fiedler is accompanied by her father, Robert Fiedler, who also will provide the committee with testimony.

Mr. Fiedler.

### STATEMENT OF ROBERT A. FIEDLER II, MUSCATINE, IOWA

Mr. **FIEDLER**. Mr. Chairman, ladies and gentlemen of the committee, I would echo the sentiments of the three children before you today. Perhaps I can give a little different perspective, and I can assure the gentleman from Utah that no one will make a political pawn out of my child.

I am reminded of the comic strip Pogo as I sit in this room with all you distinguished ladies and gentlemen, and as Gerald did, I give you the benefit of the doubt—I assume you are intelligent people because you are in an intelligent position. Mr. Kelly's character Pogo after a very difficult day in the swamp sitting on his log philosophised by saying, "We have met the enemy and he is us."

When this committee invited our daughter to testify here, I would not have been surprised if Jessica had said no. She very definitely has a mind of her own. Of course I was delighted by her acceptance of the challenge. I only wish that my wife Marge and my son Bobby could share this experience. We are a very close-knit family. The 9½ months since I quit my position as county civil defense director have been a time of testing for us, and I assure you Jessica and I would not appear here before you today if it were not for the love and support of our family and our friends who stood by us in a variety of ways.

I have been asked if I have coached my daughter for her testimony, and I have two answers. No, this is entirely her own occasion. Her mother and I have bent over backward to keep it that way. And, yes, in the sense of trying to impart values and shape an independent conscience, we have coached Jessica all of her life. Both of those answers are true.

I have been told, "Of course your children have an inordinate fear of nuclear war—you instilled it in them." I acknowledge that we talk about nuclear weapons at our house and the consequences of their possible use. We all like to think that our children are the most precocious in the world and I am no different, I am a very proud father.

One day after I had a particularly hard day, I came home. Bobby in his usual bubbly self told me about his rabbit and the fact that he was riding his bike up and down the road and all of a sudden just out of the blue he said to me, "Daddy, when I grow up will I have to go to nuclear war?" Seven years old. I was devastated and I replied, "No, son, not if I can help it."

So I have been doing all I can to make sure that none of our children ever face that god awful holocaust. In the last year I have talked to nearly 4,000 high school students all over the State of Iowa. And in case any of you are confused, the University of Iowa is at Iowa City, Iowa, not Iowa City, Ohio. Some of you may be confused. Many, many of them have verbalized their concern: they're afraid they're not going to grow up. These three children certainly have done that much better than I can probably do.

What do you say when youngsters say, as they have to me, "If I get married, I'm not going to have kids because I don't want them to die in a nuclear war." You can't throw them a lie. Before the nuclear age we had the luxury of being ignorant of the devastation wars caused. We were able to limit the degree of civilization we would destroy. Today we're not talking about World War II and World War I, and kids understand.

Too many people say there is nothing we can do about it--nuclear war is going to come, just don't think about it. I can't help thinking about it. Imagining the worst and planning for it was my job. My daughter was the one who called me to account. One day she said to me, 'Daddy, if you hate the bomb so much, why are you doing what you do?"

I was raised a Catholic. I have not said that very many times before. I'm proud to be a Catholic, and my church teaches peace and justice. We were always told some things are right and some things are wrong, and there are some things we must not do. Finally my conscience told me I could no longer plan for nuclear war.

I'm very pleased that the recent bishops' pastoral letter said clearly that nuclear war is wrong. Yet our church leaders are saying one thing and our Government is doing the exact opposite. As citizens of this Nation we are saying to our children, "Do as I say, not as I do." Rearming America is big business now, the only recovery I can see, and lots of kids' parents live daily with the anguish that I felt and still feel as they go to work in their war industry jobs.

I love my country. I'm proud to be an American. I was as outraged as anyone when the Soviets shot down the Korean airliner, whatever their paranoid justification. It really burns me up that many in Congress say that our peace movement is "pro-Soviet" and use a Soviet atrocity as an excuse to vote for unprecedented buildup of horrible weapons. If anything, this tragedy underscores the need for a curb on the armaments race. Two superpowers not even communicating when a plane gets shot down. What if this were a true crisis bordering on war?

To deny that children fear nuclear war is ridiculous. When kids bring home their Weekly Reader with a picture of the detonation of a nuclear weapon, you can't say that just because they're not as sophisticated as grownups they don't know what's going on.

Just as we as parents have an obligation to our children to protect them, to educate them, to contribute to their social and moral growth so also you Members of Congress must take responsibility for the psychological impact of your moral leadership, or lack of it, in your actions here.

I would love to talk to each of you members individually away from the cameras and the reporters. This is not a partisan question. We're not talking about Republicans and Democrats. We're talking about human beings. We're talking about children. We're talking about our world. We're talking about whether or not you agree that we should go on living. The bomb is not discriminating. Unlike the creators, the bomb doesn't care whether you're Republican or Democrat, male or female, black or white, rich or poor, Christian or something else. The bomb doesn't care if you're old or young. The bomb just doesn't care.

But I care; and children care; and my neighbors in Muscatine, Iowa, care; and, if you believe polls, the great majority of Americans care. And I venture to say that virtually all of us on this planet care—and we'd better, ladies and gentlemen, because it's the only planet we've got

Thank you.

[Prepared statement of Robert A. Fiedler II follows:]

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Chairman MILLER. Thank you.

Gerald, could you tell the committee how you became interested or involved in the issue of nuclear weapons or nuclear war?

How did your concern begin?

Mr. ORJUELA. When I was about 10 I read books on World War I, World War II, Vietnam, Korea, and I noticed when the Japanese/United States war ended how it was ended by dropping two bombs on Hiroshima and Nagasaki. Seeing a mushroom cloud black and ugly with death, it makes you think it could happen again. This time it could happen on Tokyo, Moscow. Washington, and if we don't stop, there is nothing.

I am not against defense but this is just too much—a nuclear war, a nuclear bomb. Having defense should mean saying that this country will live its own way, and this country will live its way.

Chairman **Miller**. You belong, as I understand it, to a committee that was formed in your previous school. You are now in junior high, is that correct?

Mr. **Orjuela**. Yes.

Chairman **Miller**. How was the committee formed? Was it among students?

Mr. **Orjuela**. Yes.

Chairman **Miller**. Why was it formed?

Mr. **Orjuela**. I was not around when it was formed, I joined up later.

The reason why I joined was after watching the movie that they had, I knew that I was scared, too, and that I should go and talk also because everybody is scared.

The three of us have proved our point. And what child, whether it be 10 to 19, doesn't know at least that we have weapons that could get rid of cities, that could wipe out hundreds of thousands of people—innocent people, people that had nothing to do with the Russians and the Americans just having a dispute over the way we run our country as the best way and the way that they say their country is run the best way. There is no child who doesn't know that.

Chairman **Miller**. So?

Mr. **Orjuela**. So if the child knows this, why are we so scared? We are scared, yes, because nobody else is scared. We feel that we are alone and it is up to the Presidents of the nations, it is up to the people of the nations, not just the high representatives, not just the President. It is the people that have to have their say on the subject. We have to say that we don't want it, it is too much.

Chairman **Miller**. Thank you.

Ursell, you mentioned that concern began to grow after watching a TV show on the Hiroshima bombing. Have you discussed this with your classmates or have other students discussed their concerns with you?

Miss **Austin**. I know a lot of students and kids who are really concerned about this issue and we discuss it a lot and they're scared, too, but they just don't know what to do about it. My God, I'm speaking now and I'm happy to have this chance to do this but they just don't know what to do.

Chairman **Miller**. Jessica, what about you? Do your friends discuss this with you or is this a matter of your own concern?

Miss **Fiedler**. Well, sometimes my parents do but most of the time they say they just don't think about it and there is nothing they can do about it and they just sit at home and just wait. They don't worry about it and I don't know why. If there is a nuclear war, the world will be destroyed and nothing will be able to live.

Chairman **Miller**. So it is not a matter that is on their minds every moment of every day?

Miss **Fiedler**. I just don't think they think about it very much at all.

Chairman **Miller**. Congressman Marriott had to go testify before the OCS subcommittee so I will recognize Congressman Coats.

Mr. **Coats**. Thank you, Mr. Chairman.

I am not going to ask any questions of you but I do want you to understand that in my opening statement I did not intend to make any of you three children uncomfortable. I am very uncomfortable as I expressed in my statement and I think there are others in the room that are probably also uncomfortable but I expressed what I expressed because I do have children. Like Ursell, I have a 16-year-old. I also have a 12-year-old and a 5-year-old.

As an adult, we all have to deal with stress. We have to deal with some unpleasant subjects and some unpleasant thoughts. You will have to forgive me because I guess I come from a philosophy of trying to keep my kids from growing up too fast too soon. I am distressed that my 16-year-old and 12-year-old are exposed to as much as they are. There is not a lot I can do about it because everywhere they go there is television, movies, and our society is just the way our society is. I regret that but that is the way it is.

So I come from the perspective of trying to at least give them a few years of childhood to enjoy whatever they can in childhood. I know that much, much sooner than I would wish that they are going to have to deal with adult kinds of things. So my statement was intended to say that and certainly not intended to put you three on the spot. You are not here for that reason and I did not want to suggest that. I am not going to ask you any questions and I thank you for your testimony.

Chairman **Miller**. Mrs. Boxer.

Mrs. **Boxer**. Thank you, Mr. Chairman.

I just want to assure the members of the panel here with us that you are making a difference. You are making a difference because you care enough to speak with your friends about your fears. These are real fears, and I think every member of this panel has stated that on both sides of the aisle today.

I would like to ask Ursell first a question and then to Mr. Fiedler I have a question.

Ursell, you in answering Congressman Miller's question said that young people you know do discuss this issue. Now I am interested basically in how you think, and this might be difficult. They know about their fears and their anxieties. Some of them may join organizations and try to change the nature of the way the political process is working in regards to this issue, but do you think that some of them express their fears in other ways such as possibly not feeling optimistic enough about the future to really plan ahead for college or a family or perhaps getting into drugs or alcohol as an escape from this—and I know that you are not a sociologist but just your own observations—or do you feel that things occur for other reasons?

Miss **Austin**. Well, I think a lot of times it occurs for other reasons but I think this is a big part of it, why some of them get into drugs, because they think there is just not anything else to live for. I myself am not going to do that, I am going to try to help other people get involved and to do what is right, at least to me. But I think that is a large part of it because like some of them they go to health clinics and they cannot really get help, they have to pay for it and they don't have any money so that sort of turns them, turns them away to other negative things.

Mrs. **Boxer**. So in other words what you are saying is because of our priorities perhaps where we are spending so much in the military budget, the fact that this may cause us to not spend enough in other areas, leads to things happening out there on the ground of the community that are not particularly good for young people today?

Miss **Austin**. Yes.

Mrs. **Boxer**. My question to Mr. Fiedler, you alluded to the fact that you were in the civil defense preparation field. When I was a county supervisor we refused to accept the money in Marin County, Calif., for nuclear war preparation because we felt it was a waste of money, we felt that there was no way to really prevent a destruction of nuclear war. So I was in that kind of situation that you were in in some sense. Interestingly enough our board of supervisors was composed of three Republicans and two Democrats and it was a unanimous decision that you couldn't prepare for nuclear war, so obviously I have a particular opinion on the subject but I ask this question because I really want to get your perspective as a professional in this area.

I don't know how many years you were in this business so you might allude to that, but did you see before you left a real acceleration of this preparation? Did it give you the feeling that there were those people in the Defense Department here in the Government here that are actually believing that nuclear war was going to be a reality and that is why they were asking for this money?

Mr. **Fiedler**. Do you want that in 20 words or less?

Mrs. **Boxer**. Well, as best you can.

Mr. **Fiedler**. I would say yes to everything you just mentioned. One of the main reasons that I quit the job, and I was in the job 4½ years, civil defense director for a small county with a population of 40,000 people and about 419 square miles so a relatively small area. We were a host area, we were going to host people from the quad city area which is a metropolitan area of a half million. When I took the job in July 1978 the emphasis at that time from FEMA was preparing for natural disasters—tornados, and in my case the Mississippi River flooding on a regular basis, those types of things.

I don't mean to give the impression that I enjoyed preparing for disasters but I enjoyed doing what I thought would mitigate the situation if in fact it did occur. Then when President Carter, who I am sure all of us know was a Democrat and not a Republican, signed Presidential directive 59 in December 1979, the whole philosophy of the Government's way of dealing with nuclear war changed from mutual assured destruction to the fact that, yes, we would fight a nuclear war; yes, we could win a nuclear war and then when President Reagan took office it accelerated at an extremely fast pace to the point where we were told that if we did not spend *x* number of hours preparing for nuclear war under the title Civil Protection Planning that we would in fact not receive the matching Federal funds through the local State organization and it has escalated completely from—well, everybody knows that we have air raid sirens and Chicago uses them when the White Sox win an intermittent pennant or a division championship and we used the first Monday of every month to sound a tornado warning if in fact there was one.

But nobody really believed that they were really air raid sirens. As a matter of fact, my sirens had never been tested in the air raid mode in 20 years when I did that and to say that the reaction was less than satisfactory would be an understatement. But, yes, it is a continual acceleration, a continual movement. I go out and people say, "People don't really want nuclear war." Fortunately that is true most of the time but I really feel—former Secretary of State Haig mentioned, "It is too bad that we cannot have a little nuclear war so we could extrapolate some data from that," because we do speculate, that is very true. All we have is Hiroshima and Nagasaki and we do in fact speculate on that, but for someone who was in Government to make that kind of statement shows me a mind set that has developed on both sides of the aisle, to coin a phrase, and it scares me, it just scares the hell right out of me, and to deny that is to deny the world we live in.

Chairman MILLER. Congressman Burton.

I have to take you in the order you showed to the Committee.

Mr. BURTON. I don't have any questions. I would like to make a comment.

Chairman MILLER. The gentleman is recognized for 5 minutes.

Mr. BURTON. I agree with these children, I am scared to death about the prospect of nuclear war and that is why I support the President in his quest for a nuclear disarmament treaty at Geneva. But unilateral disarmament surely, as in World War II when Lord Chamberlain followed the policy of appeasement and weakness, will cause the aggressor, the Soviet Union, to continue to follow the barbaric policies of expansionism. We need look no further than the Korean jetliner to see what they are capable of.

We must remain strong as we pursue nuclear disarmament in Geneva. I restate that weakness has always brought on aggression by those who would strive for world domination. The Soviet Union is no exception to this rule. Look at their record. We must strive for nuclear disarmament but in the meantime we must be strong. I think that if those who support the policies of unilateral disarmament are successful, then we run a very real risk of having the Soviet Union provoke a nuclear war in the future.

That is all I have to say.

Chairman MILLER. Congresswoman Schroeder.

Mrs. SCHROEDER. First of all, I want to thank all of the witnesses. I think it shows a lot of guts to come to talk to us. This committee has made me think seriously about some of these issues. When I compare my childhood with the childhoods of these young people from around the country, I realize that when I was your age, I didn't think about the things that you do, child support, divorce, unemployment, or nuclear war. We really worried most about whether or not we could have a Coca-Cola after school. That is where a lot of us in my generation come from.

I would like to ask Miss Austin about one of the frustrations I hear from the younger generation. I have a child your age and I hear him and his friends complaining that, "You adults don't treat us properly. You want to talk down to us. We would feel more comfortable if you would be honest and level with us about your own fears about nuclear war and other such things rather than try to gloss over them."

Is that just unique to my household or is there frustration that adults don't deal straightforwardly with kids or understand how much more sophisticated they are than the youth that we were?

Miss AUSTIN. Yes, I think that is true. I would like to be dealt with as a person, not as a teenager or a youth. I don't want to be looked down on, I want to be an equal human being just like everybody else and I think a lot of teenagers want that.

Mrs. SCHROEDER. I certainly see that at home. One of the questions that I have involves my frustration as a parent since I want to raise my children in a hothouse where they are not subjected to the climate or evil things. That's a Santa Clause mentality. You want everything to be perfect. Sometimes I realize that this is not really fair to them because at some time they have to leave the hothouse and go out and deal with the real world.

Gerald, I believe you testified that there was a committee in your school talking about nuclear war. Then Jessica said that the kids in her school didn't really want to talk about it too much, because they didn't want to think about it.

Are kids going through the same thing as adults? In other words, do they want to live in a pretend society where these problems are ignored? Why does Gerald's school want to deal with it but kids in your area don't? Do you have any idea?

Miss FIEDLER. No; some people don't want to think about it, they are too afraid and they think it is hopeless, they cannot do anything about it. Some just think, you know, if you try, you can prevent it.

Mrs. SCHROEDER. Gerald, when you work with your committee, what does your committee want to do about it? Some of Jessica's group says, "Well, we just don't want to think about it," although Jessica clearly doesn't agree with them. Youths want to think about it. Do they try to figure out what they can do about it? Do they get involved with the parents or what do they do? Did they just study the problem of nuclear war?

Mr. ORJUELA. They didn't study it, they tried to to do something about it. We wrote petitions.

Mrs. SCHROEDER. Who did you petition?

Mr. ORJUELA. First we signed our names on the paper of all the committee members and we went outside and saw how many people in the school came and wrote their names on the petition and we sent this to the President and we got a response. But the reason why we think about it is if a bomb hits, there is no place to run. We can't run to our car and go to the nearest bomb shelter because outside as soon as we hear the warning that the bomb is coming, it is going to be chaos.

Mrs. SCHROEDER. But aren't you also saying you don't think those bombs are going to go off by themselves. You seem to be saying you are worried about the adults that have their finger on them?

Mr. **Orjuela**. Yes, we are worried about the bombs, the people who have their fingers on them who are the ones who as soon as the signal comes they press the button and it's over.

Mrs. **Schroeder**. Mr. Chairman, I am impressed at how knowledgeable these young people are. That's wonderful.

Thank you very much for being here.

Chairman **Miller**. Gerald earlier this morning suggested that his recreational reading was Gray's Anatomy. I enjoyed that also.

Congressman McKernan.

Mr. **McKernan**. Thank you, Mr. Chairman. I will be very brief.

I don't have a question, just a comment to address to our witnesses and that is I hope that from what you have experienced today you won't think that there are any Members of Congress who are not concerned about nuclear war. I guess that what I would like to leave you with is that we appreciate hearing about your concern because we all share them. What you have in Congress, and I think that that is what makes this country great, is an ability to express one's opinions, one's views and one's ideas about the proper way to solve this problem and it is not a partisan issue.

There are differences within the Republican Party on how to avoid having a nuclear war. There are differences within the Democratic Party on how to avoid having a nuclear war. I just want you all to know, in spite of what you might see in the media and in spite of what you might think you have heard even here today, that in spite of the differences we all want to do everything we can to avoid a nuclear war.

I think that you ought to be concerned about the issue. I am glad that you have shown the initiative to be involved and to come here today and let us know your views. Everyone in this society ought to be doing that but that ought not to indicate that just because somebody has different views than you do that they are not also concerned about nuclear war and maybe see a different way of trying to avoid it. This issue is an emotional one as well, and it should be, that people feel very strongly about the issue and sometimes don't realize that someone who has a different view is just as concerned about the issue; they just think it ought to be solved in a different way.

So you go back and continue to think about this issue and talk about it with your classmates. I hope you will try to keep in mind the views that you hear from others and really analyze the issue because I don't think we have come up with the proper answer yet and we are going to continue to work on it here in Congress. It may very well be your generation that is going to finally find a way out of this nuclear age and make the world a lot safer for all of us.

Thank you.

Chairman **Miller**. Congressman Morrison.

Mr. **Morrison**. Thank you, Mr. Chairman.

I don't have a question, but I would like to share a few words with our witnesses. I would first like to thank all four of you for taking the time and trouble and energy to share your perspective with us and to tell you, particularly to the children, that I have been very impressed with children in my district who have gotten involved in the issue of the arms race and have taken some very concrete steps to try to do something.

We had six children from the New Haven area in Connecticut who traveled to Sweden. They met with children from the Soviet Union and from Scandanavia and talked about these fears and concerns and tried to build some understanding about how the future adults might do a better job than the current adults in removing this risk.

I know that when I grew up in the fifties and sixties we didn't face this issue as children. Nuclear war and the threat of nuclear war was a far away thing We thought we could hide under our desks in school and that somehow it would pass. It was something that was deeply suppressed by the way that we were raised.

I think it is particularly important that we recognize that by bringing this issue forward and bringing it forward with our children, we are doing something that we hope will leave you better prepared than we were on these questions, more able to deal with them in the way that everyone says that they want them dealt with; that is, to remove the threat of nuclear war and to remove nuclear weapons from the world.

It seems to me there is no way to get from here to there if our children don't grow up with the recognition of the danger, so that they are sensitive to the tremendous challenge. We have to find a way out of the horrendous situation we are now in. So I commend you for making that kind of commitment and for those adults who understand that you can't hide the truth from the children, that you have to share it. I hope that they will be more creative than we have been so far in dealing with it.

Chairman MILLER. Congressman Wolf.

Mr. WOLF. Thank you, Mr. Chairman.

I won't ask any questions, I just want to make a comment to the panel. I appreciate the sincerity of the children on the panel. There is no such thing as a winnable nuclear war. But I believe it is important for you to remember, all of you on the panel, that we are dealing with the Soviet Union which has a different form of government than our form of government. The head of the Soviet Union, Andropov, was head of the KGB and killed very many, many innocent people, many millions of people, in his own country.

It is a government that persecutes the Jewish people, will not allow them to leave their country and exercise their faith. It is a country that has sent Russian troops into Afganistan and has slaughtered many women and children and innocent people in Afganistan. It is a country that has even been involved—as much as we believe in the one adult on the panel who said that he was a member of the Roman Catholic faith—in the attempted assassination of a Pope.

I think it is important that we remember who we are dealing with. In this end, I believe we all share the same concerns. I am the father of five children and we want to bring about peace but the question is, as the Congressman from Maine said, as to how we do it.

I wanted to also express my concern, and I might say disappointment, to the chairman for the context within which these hearings are being held. This is an issue and perhaps an issue that we could have gotten to at a later date. One of the prime issues that I am concerned about is the question of teenage suicide. Fifty-seven teenagers have attempted suicide since we have been sitting here and three of them have been successful. The committee's report on page 40 list this matter as a main concern under our review.

If you saw the CBS special in Houston and Dallas then you saw the alarming number of young people that are committing suicide. This is an issue that I think this committee has the ability to deal with and to do something about. There are many other issues—child abuse as Time magazine covered, drug abuse that Mrs. Heckler was talking about, and alcoholism among our young people. As a father of five children I am concerned about these things and again I think the committee has the ability to deal with them.

I am concerned, Mr. Chairman, although I know that you will disagree with me, that by holding this hearing you may have put the dagger in the heart of this committee and politicized it to the point that all its recommendations—all its recommendations—will now be viewed in a political light. Some might even ask why we are having this hearing in the Armed Services Committee room with military soldiers marching down Independence Avenue rather than holding it in the Health and Human Services Committee room. People will ask that and I think now there has been a rebuttable presumption that this committee has been politicized. I was one of the conservative Republican members of this body that voted to establish this committee and lobbied minority leader Bob Michael so that I could get on this committee because of my concern—the concern about the breakdown of the families, children's suicide, teenage suicide, the breakdown of our whole society.

I think the jury is still out, Mr. Chairman, and you have an opportunity—and you may not like to be put in this position—to prove us wrong. By holding this hearing in this context I think there is a rebuttable presumption that this committee has now become politicized and that its data base, its reports and anything else it does in the future will really be viewed as a political sham. Losing the committee's credibility is not what we want. The jury is still out. I am not saying this is absolute but I will tell you that I am concerned.

I want to again thank the panel for coming.

I have five children—a son 19, a daughter 17, a daughter 16, a daughter 14, and a daughter 10. What you have done really has been very brave. It's very difficult, I know to address people. Frankly, I even feel funny getting up before a group when I speak out in my congressional district. So I know, it took a lot of courage for you young people to join us today.

Chairman **Miller**. Congresswoman Johnson

Mrs. **Johnson**. Thank you very much, Mr. Chairman.

I just want to welcome you young people. The really exciting thing about your being here is, at your age, having the opportunity to know what it is to live in a democracy and to experience the freedom and the opportunity to influence your Government in a way that really very few people in the entire world enjoy. I hope that as you go home and recollect on this experience and as you take history courses in the future, and in your schoolwork and in college, you will reflect on your opportunity to share with the Congress of the United States your perception of your own fears and of those of your friends as they impact national policy. I hope that you will remember that the challenge really for us and for the world is to find a way for all nations to move toward the realization of this opportunity for their people.

So I hope as you sit here that you are really proud to be Americans because we sometimes forget to be conscious of the enormous blessings that we enjoy and that we have earned through this kind of dialog and through the quality of our legislative process, on our city councils, in our State governments, and in our Federal Government.

The second thing I want to say is that you are not alone. I think if there is one thing that you should take home with you today it is that we in the Congress also fear nuclear war. There is not a person sitting here of any party that does not share your fears. I think the challenge for you is the same as the challenge for us and that is, what do we do with these fears? We have never been very good at handling fears, whether it is fear of child abuse, fear of a parent, fear of a friend, or fear of a bully on the schoolyard, but now we have the problem of the fear of an action—a single action that would destroy the world.

That is a heavy burden, it is something I didn't have to grow up with when I was a child. It is something you have to grow up with and something my children who are a little older than you have had to face in their college classes and try to deal with. I commend you for your willingness to face up to this fear, to acknowledge it and to grapple with it.

I would ask you and urge you that among your friends now, first of all that you not feel alone. Second, you have confidence that not only we share your fear but that we are with you in that search for a solution. I hope that you will take from this experience the message that now we must act on our fears—that you must act. Petitions are one way of acting, but as you advance in school I hope you will study the materials that have to do with the issue and the question of what do we do now.

Now that we know that we have this fear, we know we cannot make it go away because there is no way of immediately snapping your fingers and destroying all those weapons that exist. You must work with us as part of the challenge to decide what course of action, what should be the policy that will make sure that it does not happen that will lead us to have the opportunity and the ability to find a way to gradually destroy those weapons on both sides while protecting the freedom and the security of the world and the people who live in it.

Truly I think you should be proud and impressed that your Congress has spent many, many, many hours debating the nuclear freeze resolution because it means that it was willing to engage in a difficult debate on the issue of solutions and consider the full range of material on both sides. I know that I as a mother and as an experienced legislator, felt no heavier burden ever in my life than knowing I would have to vote on policy in this area, that I was a part of the process that shows us what actions we must take, to try to take, to prevent the realization of the things that you fear and that we share in your fears.

I would just ask, Mr. Chairman, if I may have the privilege of submitting my opening statement which unfortunately I was unable to give since I was attending another hearing in the Congress. It goes into somewhat more detail both in terms of how I see how we must deal with fears at this time but also my sense of urgency that this committee deal with this fear. I know this fear is just as real, just as powerful, and just as important as the fear of the destruction of the single family unit, the problems of divorce, the effect it is having on our children as they anticipate the destruction of the loss of a parent or the loss of an adult.

Chairman MILLER. The gentlewoman's time has expired.

That request was made earlier and unanimous consent was granted that opening statements could be included.

Mrs. JOHNSON. I do appreciate your being here and I commend you for your action in appearing today.

[Opening statement of Congresswoman Nancy Johnson follows:]

### OPENING STATEMENT OF HON. NANCY L. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Mr. Chairman: I appreciate this opportunity to share with you some of my thoughts about today's hearing and I would like to join with my colleagues in expressing concern about the exclusiveness of the topic this morning.

There is no doubt in my mind, as a legislator, a citizen, and as a parent, that nuclear war is the greatest threat we as a nation face and that living with that reality is the most difficult challenge we as individual human beings face. As a new Member of Congress, I can say without hesitation that debating the issue of the arms race has been the most sobering legislative responsibility I have ever shouldered. It took years of study of a great quantity of material and much disciplined thought to come to grips with the enormity of the nuclear threat and the complexities of determining an appropriate, sound course of action for our nation.

Many of us here supported the nuclear freeze resolution before the Congress, but I would venture that no one who supported or opposed that resolution did so easily, without soul searching, reflection and many hours of study. The great many numbers of times the Congress spent on the debate testifies to the seriousness and complexity of the matter. My experience and the public process of the Congress, demonstrates that fear, while real, is not the stuff of solution, does not provide the substance to make the difficult choices involved in planning a course of action that will prevent nuclear war.

By conducting today's hearing we are including in this important debate the children of our nation, whose fears are valid, but whose experience in seeking international solutions is non-existent. I hope today that we learn from these young people about their fears—for what parent or teacher has fully dealt with the challenge of educating children to have a fearful reality without being overcome or paralyzed by the possibility of such havoc as wrought by nuclear war? Let us seek instead to find new insight into dealing with this problem, unique to today's youth, but let us not allow the national policy debate to appear to be a matter purely of emotion, nor isolate this fear from the web of fears that so surround our children.

I was saddened to read in last week's "Washington Post", for example, that fears of being excluded or rejected by others, fear of competition, unrealistic fears of failure and humiliation and a sense of aloneness have contributed to a phenomenal jump—nearly [illegible] percent increase—in the suicide rate of our young people. The article went on further to state that many teenagers appear to have been driven to suicide because of divorce. Parental divorce may come at a time when the turbulent psychological world within the adolescent, and the rapidly changing demands of the external world already create great stress. What are we doing to address this frightening phenomenon? Are these fears any more or less real than the threat of annihilation? Is it realistic or useful to compare them?

What kind of values do our children have in an increasingly competitive, violent society? What is the impact of daily exposure to visions of murders and violence on television? How are we helping our children cope with a world which values success and material wealth more than individual, personal accomplishments and strong moral convictions? What are we doing to help prepare young people for overcoming their fears in order to become responsible, caring adults?

Mr. Chairman, I believe we as a Select Committee would be seriously remiss if we did not seek to understand the web of immediate fears that surround and threaten so many of our children. We must understand the implications for public policy of the newly unstable environment in which our children are growing.

I hope the Committee will explore all of these areas in a more meaningful way today and in the future as I believe all of them are at the heart of the challenges that face us as a nation and as a Congress.

Chairman MILLER. The gentleman from Utah, Mr. Marriott.

Mr. MARRIOTT. Thank you, Mr. Chairman.

I apologize for having to step out and testify before another committee but I just want to tell you, Gerald, and Ursell and Jessica, that we enjoyed your testimony. You have been able to come today and see how Members of Congress disagree on many of the issues and even after disagreeing in public why George and I are going to go out after this meeting and have a glass of milk together. [Laughter.]

All is not lost. I just want to say to all of you that the thing you should learn from this meeting, and you have done it, is to stand up for the things you believe in. I want to congratulate all of you for coming and saying it the way it is, saying what you believe and having the courage to come before this committee and expressing your point of view. Good luck to all of you and thanks very much for coming.

Mr. Fiedler, thank you for bringing your daughter.

Chairman MILLER. Congressman Lehman.

Mr. LEHMAN. I am sorry I am late but we all have conflicts.

I am going to be 70 years old on my next birthday. Nobody likes to be 70 years old if they can be younger but one of the advantages of soon getting to be 70 years old is that I have a feeling that if I were 7 or 10 instead of 70 that I would be very distressed that I would not be able to have the chance to live out my entire life span because of the apparent potential of a nuclear holocaust. So one advantage in being old today is that you will have a better chance to live out your life span than being young today. That is a very sad commentary on what we are dealing with in relation to nuclear warfare.

I thank you for coming today.

Chairman MILLER. Gerald, you were sending me a signal you had something to say.

Mr. ORJUELA. I would like to say two things, please. First of all I feel that it is incorrect to say avoid nuclear war. The correct way is dissolve nuclear war. Avoiding is talking and saying that we shouldn't do it like, for instance, SALT II. No change. We still have the missiles. Any time we don't feel that we can agree any more, we just press the button and war. Disarm is to get rid of the missiles. That is the right way to explain it. Disarm nuclear war.

The second thing is I would like to say that if this was not the issue of nuclear war—if it was the issue of teenage suicide, alcohol, drugs—you prove your point, those are important issues, but if this issue was not made today, then when would that have been? After a bomb had hit? After there was a war if we are still here?

Each person according to the Constitution has his chance to speak but then if we don't get a chance to speak, when is it going to be determined? After or before?

I end my statement.

Chairman **Miller**. It's enough to leave a politician speechless. [Laughter.]

You're doing a hell of a good job. Let me thank all of you on the panel for coming here today. I think it is very important that you made the effort to come here and to participate. We will probably continue to argue about whether or not inviting you was proper or improper. This committee, as long as its tenure exists, will continue to hear from children, will continue to solicit the views of children.

This committee was created to hear the views of children. Sometimes your testimony will be controversial and sometimes it won't. I think it is very important that we not ignore one of the very large constituencies of this committee.

As we sit in a position to make public policy it is also very important that from time to time we consider the impact on those people who have to live with those policies. I don't think there is any disagreement on this committee about the desire to rid the world of nuclear arms, I don't think there is any disagreement on this committee about the complexities of trying to do that. There are many avenues that are being sought after to accomplish that fact.

I also think it is very important that as we consider our timetable that we recognize your timetable and the future that many of you and your friends aspire to. Perhaps that was brought home here today with your testimony.

So thank you again so much for your time and your effort to travel here this morning.

Thank you so much for coming.

We will get on with the second panel now.

Thank you.

Mr. **Fiedler**. Thank you.

Chairman **Miller**. Next the committee will hear from a panel of researchers, including Dr. John E. Mack, Professor of Psychiatry, Cambridge Hospital, Harvard Medical School; Dr. David Elkind, who is the chairman of the Elliott Pearson Department of Child Study at Tufts University; Dr. John Goldenring, Loyola Marymount University and a fellow of the American Academy of Pediatrics; and Dr. Robert Jay Lifton, the Foundations' Fund for Research in Psychiatry Professorship, Yale University School of Medicine.

Gentlemen, if you will come forward. We are under some time constraints. We obviously took a little bit more time with the first panel than anticipated.

Your prepared statements will be placed in the record in their entirety and the extent to which you can summarize and allow time for questions will be appreciated by the committee.

Obviously one of the central issues raised in the opening statements on both sides of the aisle is the question of whether or not there is sufficient data to go forth in terms of a discussion of this issue and its impact. I think you can help enlighten us as to whether or not this is a matter of concern or not.

We will proceed with Dr. Mack first.

## STATEMENT OF JOHN E. MACK, M.D., PROFESSOR OF PSYCHIATRY, CAMBRIDGE HOSPITAL, HARVARD MEDICAL SCHOOL

Dr. MACK. First I want to thank the committee for this opportunity to speak with you today.

Several psychologists, including Brewster Smith to whom Congressman Marriott referred, have noted how little research had been done on the impact of the nuclear age on children and youth considering, in Smith's words, "the human centrality and scientific interest of the issue."

President Reagan in his address in November 1982 expressed concern about the effects the nuclear fear is having on our people. He described in particular upsetting letters, in his words, often full of terror, he was receiving from schoolchildren telling of their fear of a nuclear holocaust.

I will summarize the data available on this subject to date. There are three types of study: surveys given to a broad sample; more detailed questionnaires given to particular communities; and interviews. In addition, there are media reports and films, and anecdotes reported by children and their families, teachers, and others.

Jerald Bachman and his colleagues at the Institute for Social Research at the University of Michigan administered questionnaires from 1975 to 1982 to 16 to 19,000 seniors from 130 public and private high schools across the country. To the question "Of all the problems facing the Nation today, how often do you worry about the chance of nuclear war," Bachman found a fourfold increase from 1975 to 1982 of those who worry often. There was also a 61-percent increase during this period of those who agreed with the statement, "Nuclear or biological annihilation will probably be the fate of all mankind within my lifetime."

Psychiatrist Daniel Offer has found using self- administered questionnaires, in which young people expressed their views of themselves and their world, that their statements have changed from the 1960's to the 1979–81 sample expressing less hope, less confidence in the future.

Survey specialist Daniel Yankelovich, summarizing the data to December 1982, found a mood of despair and gloom, a sense of the future—this is in the United States and Western Europe—as being very threatening, as perhaps there not being a future.

The first questionnaire studies were performed by Sibylle Escalona and Milton Schwebel in response to the Cuban missile crisis in 1965. They found at that time a great deal of fear of war and uncertainty about the future. Escalona observed, "The profound uncertainty about whether or not mankind has a foreseeable future exerts a corrosive and malignant influence upon important developmental processes in normal and well-functioning children."

No studies have come to our attention between 1963 and 1977 when the American Psychiatric Association appointed a task force to study the psychosocial impact of nuclear advances.

In the initial study over 1,100 questionnaires were given to children and adolescents in the Boston, Los Angeles and Baltimore areas and more detailed responses were received from 75 children in high schools in the Boston area. These questionnaires were given in 1978, 1979, and 1980 and questions were asked like, "When were you first aware of nuclear advances?" "What does the word, 'nuclear' bring to mind?" "Do you think that you could survive a nuclear attack?" "Have thermonuclear advances influenced your plans to have a family, your view of the future?"

About 40 percent of young people reported that they became aware of nuclear developments before they were 12. A great number expressed fear about this issue—more than we had expected—and a high percentage said that it had affected their plans about marriage and their thinking about the future.

In the more detailed responses children expressed, somewhat to our surprise at that time, vivid thoughts about the terror they had about the nuclear threat, their powerlessness, images of nuclear destruction, doubt about whether they will ever have a chance to grow up, expressions of "Live for now since there won't be a future."

Dr. Beardslee and myself and the members of the task force raised questions, too, about what effect this sense of futurelessness was having on personality development, particularly about whether young people could form stable ideals, which depend on a sense of continuity and confidence in the future, when the very future itself was jeopardized and they felt that the adults to whom that future was entrusted could be held responsible for that jeopardy.

Since that time there have been a number of studies which used this questionnaire in modified form. This has been one study in Newton North High School. A group of 900 young people in the Greensboro-Guilford County area in North Carolina the questionnaire was questioned. Several thousand questionnaires were collected all over the country in October 1982 by educators for social responsibility and similar findings have been discovered that a very high percentage of children, an increasingly high percentage, are worried about the nuclear threat.

The Greensboro-Guilford County study also showed a great deal of lack of information about the issue. Seventy percent only of high school students knew which countries had actually used nuclear weapons in war and 192 minutes was the mean estimate of how long it would take Soviet nuclear missiles to reach this country.

Efforts since this time have been made to do studies in which the nuclear issue is not addressed directly. There is the concern about researcher bias, or revealing the agenda of the questioners so studies have begun to take place—the first by Scott Haas, a psychologist—in which the nuclear question is embedded among a number of other fears to see the place that it has. Dr. Haas found in high schools in the Connecticut and Massachusetts areas that the nuclear issue was listed as the first concern among children more frequently than any other issue, although less than half listed this issue first.

You will be hearing about work by Dr. John Goldenring and Ronald Doctor in California and their colleagues. Just one striking finding of theirs was that among 20 issues—which included parental divorce, pollution, cancer, world starvation, fear of getting a job—the nuclear issue ranked second as the greatest worry of their sample, second behind parents dying.

There has been only one interview study, which was conducted by psychology student Lisa Goodman and myself and other colleagues at the Cambridge Hospital, in which we interviewed in depth 31 high school students in the Boston metropolitan area ranging from 14 to 19 of diverse religious background. They were questioned about these issues and again this widespread fear, sadness, helplessness, and cynicism came forth. Each interviewee expected that nuclear war would come in his or her lifetime. Some seemed to live on two levels, planning as if there were a future while believing nuclear annihilation to be inevitable. Civil defense was dismissed as useless. Nuclear weapons seemed to offer little sense of security, although the interviewees would not want to live in a situation where the Soviets had nuclear weapons and America did not.

Some of these adolescents resisted stereotyping of the Soviet Union, acknowledging that they are "supposed to be our enemy." Some distinguish the Soviet Government or "system" from its people. Both superpowers are held responsible for the arms race, which is perceived as dangerously out of control with a momentum of its own. Some see technology as having wrested control from man. One 15-year-old boy was unsure who would have responsibility for initiating a nuclear war. He said, "I think that's who does it—a computer, or the President. I'm not sure. I think it's a computer."

Many expressed the desire for more knowledge, especially about the Soviet Union. In offering solutions to the impasse these students emphasize better communication between the leaders of the superpowers and express the desire for a chance to participate in the decisionmaking process, which is seen as a way of overcoming their sense of terror and helplessness.

There is also a steady flow of information which reaches researchers and others from newspaper and television reports, films, and anecdotes. These sources are difficult to evaluate because they often illustrate a point of view of the person presenting the information. As a frequent audience myself of such reports, and someone clearly concerned about this issue, I can only offer a few personal impressions.

It seems that younger and younger children are expressing their fear about this issue. An 11-year-old girl recently asked her parents if she would have time to commit suicide in the interval between learning that nuclear bombs were on the way and their actual detonation. Children as young as 5 and 6 are expressing fears to their parents and teachers about nuclear destruction and not growing up. Six- to nine-year-olds seem to be afraid they will be abandoned and left alone in a nuclear war; that is, that they will survive and their family and friends will be killed, which reminds us of the fact that reports of what children and adolescents express have to be seen in relation to other developmentally age-related concerns of young people.

Some children ask what it is like to experience different age periods, as they do not expect to reach them themselves. The obsession with video games, in which nuclear destruction comes inevitably after a period of defensive success, seems to be both an effort to master the nuclear fear as well as a preparation for nuclear annihilation that is seen as inevitable.

The data available so far about what American children and adolescents think and feel about the threat of nuclear war is limited. There are methodological limitations in the size and percentage of compliance in the studies and in the age, geographic and socioeconomic distribution of the samples. The studies have been largely performed by people who are concerned about this issue.

There is only one pilot interview study. There are no studies specifically devoted to preteenage children. It is very difficult to categorize the responses from questionnaire studies because this is such an emotionally laden subject. For example, some young people seem not to be involved in this issue, but does this mean that they are truly not involved, or are they defending themselves? I had an 11-year-old neighbor boy who came to me after one of his teachers had asked him questions about the nuclear problem and what he thought about it and he said, "You know, I had not realized how much it bothered me until that teacher gave me a chance to talk about it."

A 14-year-old boy on a questionnaire, when asked had the nuclear threat affected his view of the future wrote in letters an inch and a half high No, No, No. How do we categorize that? Is that a no or a yes?

Young people seem in record numbers to be conscientious about their studies, some people say, but Brandeis sociologist Gordon Fellman asked one of his students a few weeks ago about why students are being so conscientious, and one young man replied, "It's the only alternative to despair when the world can blow up at any moment."

Now I will summarize what I believe these data show and some of my own more personal conclusions on this subject. First, the summary of the data to date.

One. Many children in different parts of the country are concerned about the threat of nuclear war and experience troubling feelings of fear, sadness, powerlessness, and rage.

Two. The meaning of this concern and the issues it raises varies according to the developmental level of the young persons.

Three. Worry about the nuclear threat has increased in the period 1975–83, as the nuclear arms competition has appeared to become increasingly out of control.

Four. An important part of this sense of things being out of control is the perception that authority for nuclear war has slipped out of human control and has been taken over by technology.

Five. Children and adolescents seem less defended than adults and more able to perceive the reality of what nuclear weapons can do and what nuclear war would really mean for them, their families and the world.

Six. There are great variations in the amount of information children and adolescents receive. Television appears to be the chief source of information.

Seven. Many children feel they have no one with whom they can discuss the nuclear problem. They feel alone—as Gerald has told us today—with their fears and abandoned, isolated and unprotected by the adult generation, including their Nation's leaders. This adds to the sense of hopelessness and creates cynicism.

Eight. Many young people express uncertainty about whether there will be a future. This futurelessness has raised questions for a number of investigators about the possible impact of the nuclear threat on personality development in childhood and adolescence.

And then I have my more personal conclusions. The distress and questions of many of our children and adolescents should lead us to a broader consideration of security than that to which we have been accustomed. Security relates to a sense of certainty or uncertainty about one's safety and existence. It is, in this sense, a state of mind. From this point of view we are failing as a society to provide security for large numbers of our children.

One can go further. We have left our children alone with this problem, to learn what they can from the media and each other. We have provided neither reliable information through our schools nor the opportunity for open and considered discussion with responsible adults—parents, teachers and religious, community and government leaders.

The problem of security in the nuclear age cannot be resolved by technological means alone, no matter how ingenious. The nuclear threat is largely the creation of human beings who cannot resolve their relationships with one another in the political realm. Our young people know this and they know, too, that the work of securing the future requires new ways of approaching relationships in the political and cultural domain, just as improvement in the emotional climate in a household is brought about by changing the quality of relationships among members of a family.

Recommendations:

One. Further careful research is needed to learn about the impact of the nuclear arms competition on children and adolescents.

Two. Educational programs are needed which provide accurate information about nuclear science and technology and the political, historical, and cultural realities of the arms competition, including the objective study of the history and psychology of enemies and potential enemies.

Our young people are going to get information one way or another. You cannot protect them. We should give them solid, meaningful, accurate information.

Three. We need to create opportunities for young people to be able to talk about these troubling matters with responsible adults in their homes, and in their schools and communities, so they can participate appropriately in the national dialog relating to nuclear weapons.

Four. There is a need to broaden our conceptions of security to include considerations of health and, in the case of the impact of nuclear weapons on children and adolescents, psychological health and well being as well.

Five. New approaches to achieving security are needed, which include examination of the dimension of human relationships in war and peacemaking in addition to purely military and technological considerations, if we are to create for our children the confidence in the future, and the freedom from fear, which President Reagan called for in his speech a few months ago.

[Prepared statement of John E. Mack, M.D. follows:]

## PREPARED STATEMENT OF JOHN E. MACK, M.D., PROFESSOR OF PSYCHIATRY, CAMBRIDGE HOSPITAL, HARVARD MEDICAL SCHOOL

### INTRODUCTION

I wish to thank the Committee and its Chairman for the opportunity to speak with you this morning. This is a subject which, I expect, is disturbing for all of us, whether or not we have children of our own. Social psychologist M. Brewster Smith in an address delivered in Eugene, Oregon in October, 1982 noted how little research had been done "on the impact of the nuclear age on children and youth" considering "the human centrality and scientific interest of the issue." (1) President Reagan in his address of November 23, 1982 on nuclear strategy expressed concern about "the effects the nuclear fear is having on our people" (2). He described in particular upsetting letters "often full of terror" he was receiving from school children telling their fear of a nuclear holocaust. In my comments this morning I will summarize the information available to date on the impact of the nuclear threat on children and adolescents and offer some suggestions about further work that is needed.

Three types of study have been done to date: surveys given to a broad sample; more detailed questionnaires given to particular communities; and interview studies. In addition, there are media reports and films, and anecdotes reported by children and their families, teachers and others.

### LARGE SCALE QUESTIONNAIRES

The only survey to address specifically the concerns of young people about nuclear war was conducted by Jerald G. Backman and his colleagues at the Institute for Social Research of the University of Michigan (3). From 1975 to 1982 they administered questionnaires to 16-19,000 seniors from 130 public and private high schools across the country. To the question "of all the problems facing the nation today, how often do you worry about the chance of nuclear war," Bachman found a fourfold increase from 1975 to 1982 of those who worry "often." Bachman and his coworkers also found a 61 percent increase during this period of those who agreed or mostly agreed with the statement "nuclear or biological annihilation will probably be the fate of all mankind within my lifetime." Psychiatrist Daniel Offer has been using self-administered questionnaires since 1962 to assess teenagers views of themselves and their worlds. He found that the samples of young people in the early 1960's expressed more hope and a greater belief in the future than those questioned from 1979 to 1981, which may or may not be related to the nuclear issue as Offer did not ask specifically about it (4). Survey specialist Daniel Yankelovich, summarizing the available data in December, 1982, reported a mood of despair and gloom in Western Europe and the United States (5). He related this mood to "a sense of the future as being very threatening, as perhaps there not being a future, a future of grimness, of shortages, of greater difficulty, a closing in of horizons."

### QUESTIONNAIRE STUDIES

The first questionnaire studies were performed by psychologist Sibylle Escalona and Milton Schwebel and were begun in response to the Cuban Missile Crisis. Both were published in 1965. Escalona examined. 311 children from widely different socio-economic groups and ranging in age from 10 to 17. Schwebel sent questionnaires to 3,000 junior and senior high school students of various socio-economic backgrounds and asked questions such as "Do you think there is going to be a nuclear war?" "Do I care?" "What do I think of fallout shelters?" Both Escalona and Schwebel found a greater degree of fear of war and uncertainty about the future than they had anticipated. Escalona observed, "The profound uncertainty about whether or not mankind has a foreseeable future exerts a corrosive and malignant influence upon important developmental processes in normal and well-functioning children" (6,7).

No studies performed between 1963 and 1977 have come to our attention. In 1977 the American Psychiatric Association appointed a Task Force to study the psychosocial impact of nuclear advances (8).

Among the subjects to be studied was the impact of nuclear developments on children and adolescents (9). One thousand one-hundred and fifty one (1,151) questionnaires were administered to children from the 5th through 12th grades in the Boston, Los Angeles and Baltimore areas. More detailed responses were obtained from 75 children in two high schools in the Boston area where the examiners spent additional time in the classroom with the teenagers. The questionnaires were administered in 1978, 1979 and 1980. The results were gathered by Dr. William Beardslee and myself and published in the Task Force Report in 1982. Questions asked included, "what does the word 'nuclear' bring to mind?" "How old were you when you were first aware of nuclear advances?" "What do you think about Civil Defense?" "Do you think that you could survive a nuclear attack?" "Have thermonuclear advances influenced your plans for marriage, having children or planning for the future?" and, "Have thermonuclear advances affected your way of thinking? (about the future, your view of the world, time?)." The questionnaire underwent some revisions between 1978 and 1980 in order to facilitate quantitative scoring. Approximately 40 percent of the total group reported they were aware of nuclear developments before they were 12. Although the majority of the overall group studied thought that civil defense would not work, a considerable percentage considered it essential. Approximately 50 percent of the 1979 sample of 389 high school students reported that nuclear advances had affected their thoughts about marriage and their plans for the future. A majority reported that nuclear advances affected their daily thinking and feeling.

Among the more detailed responses of teenagers from high schools in the Boston area there were vivid expressions of terror and powerlessness, grim images of nuclear destruction, doubt about whether they will ever have a chance to grow up and an accompanying attitude of "live for now." Some expressed anger toward the adult generation that seemed to have so jeopardized their futures.

Beardslee and Mack, as Escalona had done before, raised questions about the impact of the nuclear threat on the development of personality. They wondered in particular about the effect on the formation of stable ideals or values, which depends upon a sense of human continuity and confidence in the future. They asked what happens to the formation of such ideals when the adult generation to whom young people turn for models, and to whom their futures are entrusted, cannot protect them and may even be seen as jeopardizing the future.

In the last two years there have been several additional questionnaire studies. High school senior Jon Klavens administered a modified version of the APA questionnaire to 950 students at Newton North High School in Newton, Massachusetts (10). Thirty-four percent of the students thought nuclear war would occur in their lifetime while 52 percent were unsure. Sixty-two percent thought the threat of nuclear war was increasing. Over half reported that the threat had affected their thinking about the future and their sense of time. Family practitioner Stephan D. Hanna administered the APA questionnaire early this year to 700 11- to 19-year old students in the Akron, Ohio area (11). A higher percentage than in the Beardslee/Mack studied associated the word nuclear with destructive imagery as opposed to peacetime uses. The intensity and pervasiveness of expressions of fear, helplessness and cynicism and anger toward the adult generation was also greater than in the APA study.

Psychologist Richard L. Zweigenhaft in conjunction with the Greensboro-Guilford County Emergency Management Assistance Agency administered a 51-item questionnaire in November 1982 to 938 adolescents and adults living in this area, including 372 high school students (120. Sixty-two percent of the total sample expected nuclear war to occur in their lifetimes while 66 percent were worried or very worried about the use of nuclear weapons. Sixty-three percent thought that nuclear war was prophesized in the Bible. The Greensboro-Guilford County study also disclosed troubling ignorance about fundamental nuclear realities. Only 70 percent of high school students knew which country has used nuclear weapons in war; 192 minutes was the mean estimate of how long it would take Soviet nuclear missiles to reach this country. There was much misinformation disclosed about what the post nuclear attack world would be like, although the great majority expressed the wish for more information.

In October 1982 Educators for Social Responsibility sponsored a day long symposium on nuclear issues called "Day of Dialogue." Many thousands of questionnaires containing questions similar to those in the initial APA study were distributed to high school students across the country. The results of 2,000 randomly selected responses were examined from among a larger number collected in Massachusetts, Wisconsin, Oregon and California. Eighty percent of those responding thought that there would be a nuclear war in the next 20 years and 90 percent of these reported that if such a war occurred, the world would not survive. Eighty-one percent said that the threat of nuclear war affected their hopes for the future, while 34 percent said it was having an impact on having a family or planning to get married (13).

Psychologist Scott D. Haas administered a questionnaire to students from four parochial private and public schools in the Hartford, Connecticut and Dearfield, Massachusetts areas in which he attempted to separate the impact of the nuclear threat from other fears and concerns of adolescence such as the economy, employment and energy shortages (14). Although the nuclear issue was listed as the first concern more frequently than any other issue, less than half listed this first.

Psychologist Ronald M. Doctor and his co-workers at California State University have administered a questionnaire developed by pediatrician John Goldenring to 913 junior and senior high school students in Los Angeles, San Fernando Valley and San Jose areas (15). In order to overcome methodological bias, or disclosure of the examiner's agenda which takes place when specific questions are asked about the nuclear issue, these researchers have embedded the nuclear war question among twenty items. Doctor et al. found that 58.2 percent of the sample were worried or very worried about nuclear war, with this concern ranking fourth, behind a parent dying, getting bad grades and being a victim of a violent crime, but ahead of such matters as getting a job, parental divorce, pollution, cancer, world starvation and their own deaths. When asked their "greatest worry" the students ranked nuclear war second behind their parents dying.

## INTERVIEW STUDY

The only interview research conducted to date is a pilot study conducted by psychology student Lisa A. Goodman with psychiatrist John E. Mack and co-workers at The Cambridge Hospital, Harvard Medical School (16). The purpose of the study was to begin to learn in greater depth how teenagers perceive the nuclear threat and to gain knowledge about their attitudes toward the political process.

Teachers, parents and counselors helped Goodman locate students from several communities in the Boston metropolitan area. Seventeen girls and fourteen boys ranging in age from 14 to 19 were interviewed in July and August 1982. The teenagers were from diverse religious and socio-economic backgrounds. As was revealed in the questionnaire studies, Goodman and her colleagues found widespread fear, sadness, helplessness, cynicism and anger among the teenagers. Each interviewee thought that nuclear war would come in his or her lifetime. Some seemed to live on two levels, planning as if there were a future, while believing nuclear annihilation to be inevitable. Civil defense was dismissed by all of these teenagers as useless, while none believed that a nuclear war would remain limited. Nuclear weapons seemed to offer little sense of security, although the interviewees would not wish to live in a situation where the Soviets had nuclear weapons and America did not. Some of these adolescents resisted stereotyping of the Soviet Union, acknowledging that they are "supposed to be our enemy." Some distinguish the Soviet government or "system" from its people. Both superpowers are held responsible for the arms race, which is perceived as dangerously out of control with a momentum of its own. Some see technology as having wrested control from man. One 15-year-old boy was unsure who would have responsibility for initiating a nuclear war. "I think that's who does it—a computer, or the President. I'm not sure. I think it's a computer." Many expressed the desire for more knowledge, especially about the Soviet Union. In offering solutions to the impasse these students emphasize better communication between the leaders of the superpowers and express the desire for a greater chance to participate in the decision-making process, which is also seen as a way of overcoming the sense of terror and helplessness.

## ANECDOTES, MEDIA REPORTS AND FILMS

There is a steady flow of information which reaches researchers and others from newspaper and television reports, films and anecdotes relayed by word of mouth on the subject of children, adolescents and the nuclear threat. These data are often difficult to evaluate as sources because they have been selected to illustrate a point of view, or passed on because of their emotional impact on the person reporting or the anticipated impact on an audience. As a frequent "audience" myself of such reports, and an individual clearly concerned about this issue, I can only offer a few personal impressions. It seems that younger and younger children are expressing their fears about this issue. An eleven-year-old girl recently asked her parents if she would have time to commit suicide in the interval between learning that nuclear bombs were on the way and their actual detonation. Children as young as five and six are expressing fears to their parents and teachers about nuclear destruction and not growing up. Young children, ages 6–9, seem particularly afraid that they will be abandoned and left alone in a nuclear war, i.e., that they will survive while their family and friends are killed. This observation reminds us of the fact that reports of what children and adolescents express about the nuclear threat, especially in the case of pre-adolescent children, must be considered in relation to other developmental issues and concerns. Some children voice curiosity about what it is like to experience different age periods, as they do not expect to reach them themselves. The obsession with video games, in which nuclear destruction comes inevitably after a period of defensive success, seems to be both an effort to master the nuclear fear as well as a preparation for nuclear annihilation that is seen as inevitable.

## CRITIQUE OF STUDIES TO DATE

The data available so far about what American children and adolescents think and feel about the threat of nuclear war is limited. There are methodological limitations in the size and percentage of compliance in the studies and in the age, geographic and socio-economic distribution of samples. The studies have been largely performed by people who are themselves personally concerned about this issue and may at times reflect a researcher bias.

There is only one pilot interview study with few on the way. There have been no studies devoted specifically to pre-teenage children. Questionnaire studies on an emotionally laden topic such as this suffer from the fact that the complex thoughts and feelings which the subject elicits can not be simply categorized. For example, many young people seem not to be involved by the nuclear threat. Does this mean they are truly not involved or are they defending themselves emotionally? Some children's concerns seem to be below the surface. An eleven-year-old boy in my neighborhood after he was interviewed by a teacher about his thoughts on the nuclear issue said that until that time he had not known "how much it was on my mind." One ninth grader in responding to a question as to whether the nuclear threat had affected his plans for the future wrote "No, No, No" in letters over an inch high. How are we to categorize such a response—as a yes or a no? Teenagers and young adults seem in record numbers to be moving ahead conscientiously to plan careers. Does this mean that they are not troubled about the future in the ways these studies suggest? Perhaps. On the other hand, Brandeis sociologist, Gordon Fellman, asked one of his students a few weeks ago why students are so conscientious these days about their work. "It's the only alternative to despair when the world can blow up at any moment," was the reply.

## SUMMARY AND CONCLUSIONS

In summarizing I will set forth what I believe may be objectively concluded from the findings themselves and add to that interpretations and conclusions of my own that I believe may be derived from these data.

### *Summary of the data*

1. Many children in different parts of the country are concerned about the threat of nuclear war and experience troubling feelings of fear, sadness, powerlessness, and rage.
2. The meaning of this concern and its issues varies according to the developmental level of the young persons.
3. Worry about the nuclear threat has increased in the period 1975–1983, as the nuclear arms competition has appeared to become increasingly out of control.
4. An important part of this sense of things being out of control is the perception that authority for nuclear war has slipped out of human control and has been taken over by technology.
5. Children and adolescents seem less defended than adults and more able to perceive the reality of what nuclear weapons can do and what nuclear war would really mean for them, their families and the world.
6. There are great variations in the amount of information children and adolescents receive. Television appears to be the chief source of information.
7. Many children feel they have no one whom they can discuss the nuclear problem. They feel alone with their fears and abandoned, isolated and unprotected by the adult generation, including their nation's leaders. This adds to the sense of hopelessness and creates cynicism.
8. Many young people express uncertainty about whether there will be a future This futurelessness has raised questions for a number of investigators about the possible impact of the nuclear threat on personality development in childhood and adolescence. There is no systematic data on this subject.

*Personal conclusions*

The distress and questions of many of our children and adolescents should lead us to a broader consideration of security than that to which we have been accustomed. Security relates to a sense of certainty or uncertainty about one's safety and existence. It is, in this sense, a state of mind. From this point of view we are failing as a society to provide security for large numbers of our children. One can go further. We have left our children alone with this problem, to learn what they can from the media and each other. We have provided neither reliable information through our schools nor the opportunity for open and considered discussion with responsible adults—parents, teachers and religious, community and government leaders.

The problem of security in the nuclear age cannot be resolved by technological means alone, no matter how ingenious. The nuclear threat is largely the creation of human beings who cannot resolve their relationships with one another in the political realm. Our young people know this and they know too that the work of securing the future requires new ways of approaching relationsnips in the political and cultural domain, just as improvement in the emotional climate in a household is brought about by changing the quality of relationships among members of a family.

## RECOMMENDATIONS

1. Further careful research is needed to learn about the impact of the nuclear arms competition on the children and adolescents.
2. Educational programs are needed which provide accurate information about nuclear science and technology and the political, historical and cultural realities of the arms competition, including the objective study of the history and psychology of enemies and potential enemies.
3. We need to create opportunities for young people to be able to talk about these troubling matters with responsible adults in their homes, and in their schools and communities, so they can participate appropriately in the national dialogue relating to nuclear weapons.
4. There is a need to broaden our conceptions of security to include considerations of health and, in the case of the impact of nuclear weapons on children and adolescents, psychological health and well being as well.
5. New approaches to achieving security are needed, which include examination of the dimension of human relationships in war and peace-making in addition to purely military and technological considerations if we are to create for our children the confidence in the future, and the freedom from fear, which President Reagan called for in his speech a few months ago.

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Chairman MILLER. Thank you.
Dr. Elkind.

## STATEMENT OF DAVID ELKIND, CHAIRMAN, ELLIOTT PEARSON, DEPARTMENT OF CHILD STUDY, TUFTS UNIVERSITY

Mr. ELKIND. First of all I would like to thank you all for inviting me here and for the opportunity to participate.

I would like, if I may, to try and put this issue of nuclear war and children's fears about it in context. It is just one of many, many issues that can be put in front of you today and that to take it as one in isolation I think takes away from the way in which it is being dealt with and the kinds of pressures that are being put on kids.

There are three major kinds of issues that young people have to deal with today that they didn't have to deal with before and all of them have in one way or another to do with growing up real fast. One is the absence of markers. It used to be that we could mark children by their clothing. When I was growing up I wore knickers, and today even infants wear Jordasche diaper covers and 4- to 7-year-old girls are wearing makeup. So the clothing market is growing up or disappearing. The activity market is disappearing. Eight-year-old girls are in beauty contests. So the activity of growing up and participating disappears.

Activity marketers like sports, it used to be that you waited until high school before you could participate in team sports and wear a letter and give it to your boyfriend or girlfriend. Now even young kids in elementary school are competing intramurally, wear outfits, have coaches and signs. So many of the markets that told kids where they stood in the whole developmental sequence are disappearing and that gives them a sense often of loss of where they are in the whole developmental context and that is disturbing.

That is one group of issues that I think it makes it hard for kids to know where they are. The issue today is not any longer "Who am I?" but "Where am I?"

Family permutations. Now the old traditional family of two parents and children is disappearing. We have now divorce and separation and we also have blended families and that gives young people an experience of loss. Adolescence particularly was concerned with the psychology of gaining—gaining of intelligence, gaining of strength, gaining of wisdom. Today more and more adolescents are concerned with the psychology of loss—not only parental loss, loss of position within the family, but also the loss of the protection that they felt that they had as adolescents from things like nuclear war.

The thing about nuclear war is that they are no longer protected as young people. Young people were always in a protected position. Things happened to adults but children were protected. Young people are not protected any longer, so that is just one area. They are not protected from the media as well. The exploitation of young people by the media is extraordinary. The sexual exploitation, the type of movies that are shown in the summertime made for teenagers. Now they have teenage vamps on the soap operas. Teenagers have more disposable income than any other age group and the media and other advertisers know that and appeal to that, so they are being exploited in those ways.

Young people are losing friends. Almost 5,000 young people die by suicide each year. Kids I talk to say always that they have known somebody who died, one of their friends who died or committed suicide or was in a serious accident. Substance abuse is now the leading cause of death amongst teenagers.

These are not things which I think result from the fear of nuclear war. I think we have the family permutations, the exploitation and the hurrying, all of which have led to what you might call stage confusion, not knowing where you are in the whole developmental sequence. That stage confusion is a very debilitating one.

What troubled me about the hearing today, I must say, is that by suggesting certainly we are concerned about children's fears and we all are concerned about that, how to help children deal with their fears but to suggest to young people that their opinions about what policy decision ought to be made I think ought not to be taken seriously and that they have the opportunity to really discuss with legislators, the policymakers, ideas about nuclear disarmament and so on I think is a farce and I think adds to giving them the false feeling that they really have the wisdom and knowledge and the experience to make those kinds of decisions—they don't.

We as adults have to play our role as adults, and what I see as I travel around this country again and again which troubles me the most is that adults are abdicating their responsibilities to young people. We are the legislators, we are the adults. We have to take responsibility for setting policy. We have the wisdom and hopefully the judgment and the experience to make meaningful decisions about nuclear policy, not young people.

Certainly we are concerned about their fears, certainly we are concerned about their anxieties, and there is a difference, but I think we do them a disservice if we attribute to them the knowledge and experience and wisdom that adults have. Even though this young man spoke very eloquently, I think if you pushed him—and he certainly is not representative of the majority of children, he is very bright. The majority of kids are not that knowledgeable, are not that experienced.

I think we have to as adults again certainly listen to children's fears, take them into account. As a therapist one of the first things I learned was that you never take anything away from a patient without giving him or her anything in return. The trouble that I see with a bunch of the concerns of nuclear war and so on is that often we take away from children when we tell them about nuclear war a sense of security.

What we as adults need to do is that we are going to tell young people and communicate, as I think we should. We certainly cannot deprive them of that information but we have to give them in some way something to do about it. Certainly young children can't do much and we as adults have to assure them that there are meaningful, hard-working and intelligent people who are trying very hard to prevent nuclear war and working hard toward that end.

Certainly adolescents who are much more knowledgeable, can we give them ways and techniques and means so they can hopefully get involved in political and social movements to express themselves and to take some action.

The two points that I want to make is that we should not in our concern with children's concerns about nuclear war take it out of the context of all the other things that are happening to young people to make them grow up fast and to put them in adult positions before they are ready that would stress them. I think the triple increase in suicide, substance abuse, and the crime of young people in the past 15 years are not attributable to the fear of nuclear war, they are attributable to the increased stress from all the different things that I have talked about. To take nuclear war as one kind of guiding theme when all of the other things in the society are pushing kids and stressing them as well I think takes a lot of contact.

What we have to do is to recognize that a bad experience is not the best preparation for a good experience, a good experience is the best preparation for a bad experience and that we ought to provide young people with the most good experiences we can and to provide them if they are young with a reassurance that the adults will care for them and if they are older give some opportunities to take action to relieve the distress that we confront them with.

Thank you.

[Prepared statement of David Elkind follows]

### PREPARED STATEMENT OF DAVID ELKIND, VISITING SCHOLAR, LINCOLN FILENE CENTER TUFTS UNIVERSITY

On a scale of one to ten, fears of war and death would rank about number ten for preschoolers, about eight for school age children and about five or six for teenagers. This is true because war and death, particularly the death of large numbers of people, are abstract concepts far beyond the intellectual comprehension of young children especially. For that matter, even adults have trouble fully comprehending nuclear holocaust. For children, more salient fears have to do with their parents, their pets and so on. Only as these conceptions expand to include historical time, geographical space and human society can they begin to appreciate the full implications of war.

Consider for a moment what the concept of war presupposes. It just presumes that the child have the concepts of different countries and nations each of which has its own vital interests. It presupposes the concepts of armies, navies, airforces and intelligence. It involves the concept of strategies and battle plans, of transportating troops and equipment. It involves ideas of morality, bombing civilians, torpedoing troopships, etc. These are but a few of the concepts entailed by the notion of war.

Children also do not understand the complex motivations and values that lead nations to fight one another. They can perhaps get a sense of wanting to hurt someone who has hurt them but it is harder to grasp why you would want to hurt someone who has never done anything to you other than belong to another country. Children's concepts of motivation tend to be rather direct and straightforward—an eye for an eye—but they cannot get angry at a country, or a society or a philosophy they cannot comprehend.

When issues like nuclear war worry and threaten children, is when these issues worry and threaten their parents. If parents talk about the threat of war, of the damage that will be done, of their doubts that anything can be done to prevent it, then children become apprehensive. But this apprehension and dread of war is reflective, it is not something that originated with the child. When children experience the threat of war they are, first and foremost, reflecting the fears and anxieties of their parents.

Teenagers are a different matter. They have the intellectual and emotional capacities to understand the true meaning of war and its dire possibilities. They can grasp the mechanics of war, the different vital interests of nations and competing ideologies. At the same time, however, they are blessed with an optimism (what I call a personal fable) which makes them believe that somehow, someway, they will be protected. With such a fable neither they (nor us) could continue our everyday lives.

At the same time, however, today's teenagers are probably less optimistic than those in the past. This is because they have experienced so much loss at first hand. Almost half of the teenagers in this country have experienced the effects of divorce and separation. Many have friends who have died because of accidents, substance abuse and suicide. They are aware of the degradation of the environment and the increasing problems of air and water pollution. The threat of a possible war is one more potential loss to the other potential losses they have deal with. Many wonder whether they have a future at all.

Yet, they, and we, continue and get on with our lives. The best therapy for teenagers insofar as loss is concerned is for them to get actively involved in their community and in political action so that they can have their opinions and concerns heard. Taking action is the best therapy for anxiety and dread. As for children, if they express concerns about war and destruction we need to assure them—as honestly as possible—that there are hardworking people trying their best to prevent war and to make the world a safe place for children and youth to grow up in.

Chairman MILLER. Thank you.
Dr. Goldenring.

## STATEMENT OF JOHN M. GOLDENRING, M.D., STAFF PHYSICIAN, LOYOLA MARYMOUNT UNIVERSITY; FELLOW, AMERICAN ACADEMY OF PEDIATRICS

Dr. GOLDENRING. I would like to thank the committee very much for inviting me to speak today.

I will try to summarize very rapidly the morass of data included in my written prepared testimony so we won't have to go through all of that. If people want to be more specific with numbers later, I will certainly do that.

Let me make a few things clear at the outset. First, everything I am going to say today applies to adolescents by definition of the American Academy of Pediatrics age 12 to 21, by World Health Organization definition age 10 to 24. This data should not in any way be extrapolated to the younger children. I have not done any research on younger children and I do not wish to speak about them today, although I may make some comments in context.

I think it is also important for the committee to know that I am a fellow of the American Academy of Pediatrics, a board-certified pediatrician, and also a member of the Society for Adolescent Medicine, having just finished a 2-year fellowship in adolescent medicine.

Chairman MILLER. The record will reflect that correction.

Dr. GOLDENRING. The reason I want to make that statement is I think it is fair for the committee members to know that although I do not at this time speak for the American Academy of Pediatrics officially, the academy is on record as being concerned about the possibility that teenagers and children are very worried about nuclear war. You should be appraised of the fact that part of my plane fare here was paid by the American Academy of Pediatrics because we are concerned about this, particularly with doing good research on this topic, so that the concerns expressed by the distinguished minority members of this committee can be addressed.

I hope that the data I present today will address some of that concern. It is new data. We have not presented this anywhere except at a small meeting in Great Britain because the data was compiled over spring and summer of last year and has not yet been published. This is our first American forum. We assure you that we are preparing for publication in major medical, psychological, and psychiatric journals.

I want to try to describe for you the process that we went through in designing the questionnaire which we used, because I think it is very important again to respond to some of the concerns of the minority members. We initially were inspired by Dr. Mack's work but particularly we were concerned that Newton North High School, for example, might not be very representative of the United States and that some of the interviews might be "leading" as Dr. Mack mentioned. That is a problem in research design, so we designed our instrument quite differently, in fact, acknowledging that our own political positions on the issue would be considered "antinuclear."

We designed the survey that we are going to present data from today specifically to be biased in the opposite direction of showing that teenagers were concerned about nuclear war. Let me repeat, that as a good research design we specifically biased the questionnaire—and copies are available for both press and members—to show that there was no significant concern by teenagers about nuclear war, and I will explain how we did that. The data do not support that conclusion in our opinion.

We wrote the questionnaire as we did, as Dr. Elkind suggested, to try to compare worry about nuclear war—by worry I mean a cognitive factor, an activated fear—to other worries that teenagers might have. First we asked demographic questions in a standard sort of way. Then we asked teens in an open-ended way with no prelude whatsoever to list their top three concerns. I am sorry because that data takes so much time to compile that I cannot tell you what the spontaneous responses were, but I expect to have that in the next couple of months.

The next thing we did was to ask them to rate on a scale of 1 to 4, where 4 was "very worried," 20 different worries. We chose them, from among those that had previously been shown to be concerns for teenagers such as: parents dying, fears of getting pregnant, parents divorced, et cetera, and embedded in this in such a way that there was no possibility for the teenagers to know what we were looking for, was "nuclear war."

Finally, we asked the teens to go back and rank order the top 5 out of those 20 worries; in other words, "What is your first worry out of those 20 if you had to rank them" and so on. So first we asked them to just give us a 1-to-4 scale on the 20 and then to go back and say which one is your first, which one is your second, which one is your third, which one is your fourth and fifth. Only then in a second part of the questions did we ask any questions about nuclear war and we made it very specific at that point.

We said one of the worries which people are concerned about is nuclear war and now we are going to ask you some questions about this, and we specifically instructed them several times not to go back and that it did not matter what their previous answers were. We have no evidence from the test administration that they did go back, and children are now very used to those kinds of "SAT formats." They don't go back because they know that is the way the tests are designed. So we don't think that that is a confounding factor in this data.

Mr. **Marriott**. May I ask a question?

Dr. **Goldenring**. Yes.

Mr. **Marriott**. What was the size of the survey?

Dr. **Goldenring**. I am about to tell you that.

The characteristics of the survey were as follows. It was in the State of California in the Los Angeles and San Jose areas. We had a total of 913 adolescents in this first study. Let me say we are intending to do cross surveys in all parts of the United States and also in other countries. As a matter of fact, we now have the survey being translated into Russian and hopefully being done at this time in the Soviet Union so we will have a comparison between Soviet teenagers and American teenagers on this entire questionnaire.

The surveys were given in the classroom either by one of our Ph. D. candidates or by teachers who had been instructed on how to administer it. The mean age of the respondents was 16.1 years, 50 percent were males and 50 percent females and it was representative for the State of California; 48 percent were white adolescents, 17.3 percent Asian, 15.5 percent black, 11.5 percent Latino, 1.8 percent native Americans, and 6 percent giving other responses which were not categorizeable.

Parents of the teens had completed high school in 86.5 percent of cases with 42 percent having had a college or postcollege degree. The families had employed heads of households, only 4.5 percent male heads of households and 11.5 percent of female heads of households listed themselves as unemployed.

There was also a normal distribution for grades. When we asked the kids what their grade point average was 47.2 listed themselves as C to B students.

So what we have then is a sample from California from urban/suburban areas. This is not a rural sample and I state that so I will be clear about it. I do not have a rural sample at this time and I am looking for one.

We think it is a characteristic sample. It is not a sample of a very white or of very smart teens. We think it is a very average sample and we think it is statistically valid.

The results quite frankly were astonishing to me. I can tell you quite frankly what I had hypothesized. I had hypothesized that about 10 to 15 percent of the respondents would be very worried and would consider this a major issue. I was wrong. That is not what the data shows. Let me try and summarize it for you.

The first thing we found is what has always been found. The death of parents is the No. 1 worry of teenagers. That makes sense.

We found in one way of measurement, which is to take the mean scores, that the second greatest worry was getting bad grades, and that also makes sense because much self-esteem for teenagers is wrapped up in how they do in school, and that has been shown before.

But when we looked at those "mean worry scores," the third greatest problem, the third greatest worry, was nuclear war. We then looked at the percent ranking each worry as No. 1 versus No. 2, and so forth.

We found again parents dying is the No. 1 concern and the percent ranking that as No. 1 was well over 20. But second was nuclear war with over 12 percent ranking that as a concern greater than their parents dying.

So we went on to look at this data, and I will provide more numbers if the members wish, and we asked, well, what is going on because this is not what we expected and it is not what should have happened. As the young lady from Oakland who was here and is an adolescent testified earlier, teenagers are supposed to be "bubbleheads," they are supposed to be concerned only about zits and the opposite sex. Well, that is true for some of them but there is a subsample of them where that is not true. It is not true, it just "ain't so."

Some of these kids appear to be very mature adults. When we looked at the fears and through statistical regression tried to see where they ran together, that is, which fears lumped together in categories, we found three different kinds of basic fear groupings. These were first "fears of bodily harm" which included things like parents dying, their own death, being a victim of violent crime, being sick and crippled, they seemed to run together.

Then there were "personal concerns"—bad grades, parents divorcing, getting pregnant or getting someone pregnant, drug addiction, moving to a new home, looking ugly, not being able to get a job, not being liked.

The third group was what I would like to call "external concerns" or "environmental concerns" and it included nuclear war and also a host of other issues that we threw in to see how they would compare—pollution, nuclear power plant leaks, over-population, starvation, earthquakes and getting cancer which, by the way, the teens seem to think of as an external factor and not a "personal concern." You get cancer from something you eat, whatever.

What we found was that of all the external issues, only nuclear war got anywhere into the top 5. All the other external issues were where we expected them to be, down at the bottom of the list of 20. So nuclear war is qualitatively different. We also found that the subsample of our 913 adolescents which was most concerned about nuclear war was also concerned about the other external issues much more significantly than the other people in the survey. Furthermore there were no differences between that subsample that was most worried about nuclear war as to the other issues; the personal issue, the bodily harm issue, when compared to the kids who are not really worried about nuclear war.

This group amounts to about a third of our sample and no matter how we analyze it that is how it comes out. About a third of the teens that we looked at were really behaving as mature adults. When we asked them in a subsample specific questions that were related to their personal comfort, how they related to their parents, and so forth, we found them to be the most mature persons in our sample, the most well adjusted and what we felt would be a leadership subgroup that was naturally most concerned about these environmental issues, what is happening to the planet and particularly about nuclear war.

So I think it is important for the committee to realize, and I must differ with Dr. Elkind about this, that there are some adolescents who are very mature in their outlook on the world, in our sample about one-third, who are in addition to the personal concerns that we expect of adolescents also are very concerned about the planet in general, environmental issues and particularly about nuclear war.

We then went to nuclear specific questions trying to ask: "What effect does this worry have?" We had found there was a very significant concern among at least a third of the teenagers and in fact 58 percent of the teenagers were answering that they were worried or very worried on the initial sample.

So we asked the teens if they ever thought about nuclear war. Here 56.7 percent said a "few times" and again roughly a third said "often."

We asked them, will the nuclear war occur in your lifetime and 42 percent—that is a heavy number—42 percent said probably yes; 9 percent said definitely yes, there would be a nuclear war and the same percent, roughly between 5 to 10 percent of our sample, said they didn't think that the war could be prevented. So I think that is the 10 percent that I was counting on in the first place as being ultraconcerned.

And this came through in all the questions that we asked. No matter how we analyzed the data, there are a significant number of teenagers—and again I will present more numbers if desired and go through this in more detail—who are very worried about nuclear war and they seem to represent a group that is concerned about the environment in general that is socially and mentally more mature than their colleagues who are still into zits.

I am trying to analyze this now to look at the whole issue of development between early, middle, and late adolescence but I haven't got that data yet to tell you whether it is the older adolescents who seem to be in this group and I will not be able to tell you that for a little while. Again this is new data.

We concluded that over half the teens we surveyed believed that there would be a nuclear war between the Soviet Union and the United States in their lifetime, 9 percent being certain, and that 5 to 10 percent of these teens—are very severely worried. We tried to ask them if this would affect their plans for marriage and whether they would delay any of their goals, whether they were "living for today" rather that planning for the future.

We just asked two questions about that and I admit to their imperfection because that is a very difficult thing to ask. But when we did ask we found again that those who are most worried about nuclear war were more significantly pessimistic and saying that, yes, they had seriously considered delaying family and marriage and, yes, they had seriously considered the possibility that other plans would have to be put off and that they really should just "live for today."

We are trying to look at whether this might lead to drug seeking behavior, suicide, and so forth, and I do not know for sure if it does but I am certainly concerned about it because again between 10 to 15 percent of the kids were responding in "Yes, I sort of agree" or "Yes, I really do agree" fashion to these kinds of questions. That is potentially a very serious concern. How much they act on it I cannot tell you but it worries me and I think it is very real.

I think also it is important to realize that 42 percent of these adolescents said that they didn't think they had received enough information in school and that more than half of them had never really had a chance to talk with an adult about their fears of nuclear war. So what I believe we are facing is a significant worry and I don't know if it was there before or not because we really don't have very good comparison data to say that in 1960 the kids were also worried about nuclear war.

But it certainly seems that it is a new thing that has been added on as a worry to all of the other personal worries that we expect from teenagers, and that it is significant, and that it presents us as adults with a problem of communication. We have to talk to these kids about why they are worried and about what we as adults and what they as teenagers can do to prevent nuclear war. To believe that there is a future for us, that we can prevent nuclear war, that we don't have to have anomie—that is the issue for us and it is not a partisan issue.

I think there are many teenagers—we are talking about millions of teenagers if this data turns out to be applicable nationwide and worldwide as we believe it will be when we do our comparison samples, and that is a very significant number. It is not 90 percent of kids are about to jump off the Key Bridge but it is significant and I think we had better start addressing it and talking to these teens.

As a last comment I would like to address the whole question of whether you can talk to teenagers or to children about nuclear war. I will step into pediatrics for a moment. I think that the anecdote about the 7-year-old that was presented earlier is the classical example of the way that children will ask us about problems that disturb them and parenthetically disturb us and that the response was age appropriate and entirely correct.

And how do we know this? Well, there are other things besides nuclear war that concern adults, that they have trouble talking to children about; and these include, for example, death and human sexuality questions. It was once said that we should not talk to children about sex and death, and that is not true. We know from multitudes of research now that you can talk to them if you can communicate in an age appropriate manner. In fact it is important to answer their questions because they are concerned and if they don't get answers they resort to fantasy.

So we need to talk to children and we need to talk to them in the right way. I don't know about the comic book that was displayed by the distinguished minority member, I have not had a chance to evaluate that, but I can tell you that there is an appropriate way to talk to children and adolescents about their fears and that it is appropriate for parents to try to do that. We need to help parents do that. We need to consider doing this in schools and churches and we need to take this problem seriously. It is a real problem and we intend to do more research on it and hope other people will follow our efforts.

Finally, I wish to restate that we tried to design the study in such a way that it would not show significant concern, but it does.

Thank you.

Chairman MILLER. Thank you very much.

[Prepared statement of John M. Goldenring, M.D., follows]

PREPARED STATEMENT OF JOHN M. GOLDENRING, M.D., MPH, FAAP, SAM, STAFF PHYSICIAN: LOYOLA MARYMOUNT UNIVERSITY, LOS ANGELES, CALIF.; BOARD CERTIFIED PEDIATRICIAN, CERTIFIED SPECIALIST IN ADOLESCENT MEDICINE; RONALD M. DOCTOR, PH. D., PROFESSOR OF PSYCHOLOGY, CALIFORNIA STATE UNIVERSITY NORTHRIDGE, NORTHRIDGE, CALIF.

Over the past two years, studies by Dr. John Mack and associates have suggested that adolescents are very concerned about the prospects of a nuclear war occuring between the U.S. and the Soviet Union. Since Dr. Mack will be presenting his findings to the Committee, we will not discuss them in detail. We wish to acknowledge, however, that his work stimulated our own research.

Much of Dr. Mack's work is based on in depth personal interviews, and on questionnaires taken from schools where there might be some question as to the representativeness of the data. We set out to design a psychological study along epidemiological lines which would add to Dr. Mack's work by overcoming its potential limitations.

Thus, the survey which is appended to our testimony has been devised. It is designed to allow us to rate teens' concerns about nuclear war in comparison to other worries, some of which are known to be of significance to them from past psychological studies. In this way we also avoid "cluing in" the teens as to the fact that we were particularly interested in their worries about nuclear conflict.

We allow teens first to spontaneously list their three greatest worries, and then to rate twenty major worries on a one to four scale, where four signifies "very worried." Then the teens are asked to rank their top five out of these twenty worries. Only after this are teens asked any questions specific to the issue of nuclear war.

The data we will present today comes from 913 adolescents who were given the survey in the classroom at six schools in the Los Angeles and San Jose areas. To our knowledge these teens had not been exposed to any unusual school programs on the nuclear issue. Eighty-eight percent of our respondents were tenth through twelfth graders with a mean age of 16.1 years. Males accounted for 50.7 percent of the sample and females 49.3 percent with no significant age differences between males and females. Forty-eight percent of the adolescents where White, 17.3 percent Asian, 15.5 percent Black, 11.5 percent Latino and 1.8 percent Native Americans, with 6 percent giving other responses to our ethnicity questions. Parents of these teens had high school education completed in 86.5 percent of cases with 42 percent having college or post-college degrees. In these families, only 4.5 percent of male heads of households and 11.5 percent of female heads of households were unemployed. There was an average distribution of school performance in the teens with 47.2 percent listing themselves as C to B students.

Thus the sample appears to be representative of a good ethnic mix and to have an economic profile which is fairly characteristic of the State of California. This is not a sampling of extremely intelligent or extremely poor or extremely white adolescents. It is our belief that they probably are also representative of the nation as a whole, but in order to prove this we intend to administer the questionnaire in several parts of the U.S. in different kinds of schools, and in rural, suburban and urban areas. Our data should, therefore, be considered preliminary, but nonetheless very strongly suggestive.

## SURVEY RESULTS

The results of teens' spontaneous fear listings have not yet been analysed, but we do have results of ratings and rankings of fears from the list of twenty which was offered to the students (see study questionnaire attached).

The number one worry both in mean score and in percent ranking it either 3 or 4 (worried or very worried) and for those who ranked this number one of their top 5 fears was "Parents dying." Mean score was 3.16 with 74 percent ranking it 3 or 4 on the worry scale and 29.3 percent listing it as their greatest worry. This is entirely the result expected, since death of parents has several times been shown to be the number one stressor for children and adolescents.

The second highest mean worry score, 2.95, occurred with "Getting bad grades", and is also expected since success in school and self, family and community esteem are very strongly linked.

Then however, we come to a most remarkable and previously unnoted and unpredicted finding. Third highest mean score with 2.69 goes to "fear of nuclear war"! Fear of "becoming very sick or crippled" is a close fourth with a mean score of 2.63. When one looks at percent ranking either worried or very worried there is a virtual statistical tie for third between "being a victim of violent crime" (mean score 2.52) with 59.5 percent, "nuclear war" with 58.2 percent and "not being able to find a job someday" with 58.1 percent (mean score 2.47). Interestingly also, "people starving in the world" had a mean of 2.51 (48.9 percent) and out scored "your own death" (mean of 2.41 and 45.6 percent). (See Table II)

When we look at percent ranking fears number one of their top five, we find the even more remarkable result that fear of nuclear war comes in second with 12.4 percent, higher than bad grades, not finding a job and one's own death! This again is totally unpredicted from any past studies. However, no studies previously have tried to see how fear of nuclear war compares with other common worries. The fact that it is among the top five fears in our analysis is extraordinary. That it is among the top three no matter how we analysed the data is frankly astonishing. Adding up the ranking data, 32.8 percent of the teenagers surveyed listed nuclear war as one of their top three worries!

Analyzing the data further, we find that our worries list breaks down into three major categories:

(1) Fears of Bodily Harm: (Parents dying, own death, violent crime, becoming sick/crippled).

(2) Personal Concerns (Bad grades, parents divorce, pregnancy, addiction, moving, looking ugly, no job, not being liked).

(3) External or Environmental Concerns (Nuclear war, pollution, nuclear plant leaks, overpopulation, starvation, earthquakes, getting cancer).

The consensus of experts and past studies is that none of the issues in the third cluster should be highly significant for teenagers who are supposedly selfabsorbed and concerned with peergroup status and body image. Our study clearly belies this conclusion. Instead, we find that a significant portion of our adolescents, representing roughly one third of the respondents, is concerned about nuclear war, and about the other world or environmental issues in cluster group three. These worries appear to occur in addition to cluster one and two concerns, since there is no difference in those worries between the group which is worried about nuclear war and those who are not worred about it.

A portion of our sample also received questions about selfimage and other adjustment characteristics. It turns out that the subsample which is concerned about nuclear war and environmental issues is also composed of teens who speak more with their parents about their problems, are better adjusted and read more. In short, we would hypothesize that they represent a pool from which future national leaders will likely come.

Thus we have determined that:

(1) Very significant numbers of teenagers are very concerned about the possibility of nuclear war, so much so that a third of them list it as one of their top three concerns and over 10 percent consider this a greater worry than their parents' death.

(2) The group of teens which is most concerned, about one third of the total, is also aware more than their peers of other potential dangers in the environment, and they appear to represent some of the most mature and better adjusted teens with high leadership potential.

However, how worried are they, and does it make any difference in their lives that they are worried? To look at these questions, the second half of our survey presented a number of questions specifically related to the possible occurrence of nuclear war with the Soviet Union. (See Part II of study questionnaire appended)

When asked if they ever thought about nuclear war, 56.7 percent said "a few times", and again 32.9 percent, roughly one third, responded "often." Then, adolescents were asked if a nuclear war between the US and USSR would occur within their lifetime. Forty-two percent said "probably yes" and nine percent responded "definitely yes"! When asked if such a war could be prevented, the vast majority, 76.6 percent, said probably or definitely yes, but 10.7 percent said "probably no" and 3.7 percent said "definitely no". Again, significantly more pessimistic answers came from the previously described group which is more worried about nuclear war.

Only 21.7 percent of the sample felt they or their families would survive a nuclear war, while 13.9 percent were unsure. There were no significant differences between high and low nuclear-worriers on this question. This incongruity shows that many of the "low worriers" may be more concerned about the possibility of nuclear war than they care to admit. Since Dr. Robert Lifton will be discussing with the committee this phenomenon known as "psychic numbing", we will not dwell on it. It is a factor in our sample, but less remarkable than the number of adolescents who readily admit their serious concern.

Finally, we attempted two questions designed to try to identify if the degree of fear uncovered has in some way effected teen's behavior. We particularly included these questions, though we admit they may be imperfect, because of the anecdotal clinical experiences of ourselves and our colleagues. Over the past two to three years in discussions with teens we have spontaneously encountered an attitude of anomie: "Since we are going to die in a nuclear war soon we might as well get high, have sex, drop out."

Therefore, we asked if nuclear war fears had caused teens to think that perhaps they did not want to get married and have children. Fourteen percent somewhat agreed and nine percent strongly agreed with that idea. When asked if the possibility of nuclear war made them want to "live only for today", 15 percent agreed somewhat and 5.8 percent agreed strongly. On both questions, the high nuclear worry group again showed a more significant response.

We further conclude, therefore:

(1) Over half of the teens surveyed believe that there will be a nuclear war with the Soviet Union in their lifetime, and nine percent were certain that it would happen. This degree of pessimism is very disturbing, though most of the sample still had hope of preventing such a war.

(2) It is our suspicion that from 5-15 percent of our sample are very severely worried about the threat of nuclear war, and that they are so pessimistic as to consider delaying plans for marriage and family. Some of their anomie may also be reflected in a "live for today" attitude which could lead them toward drug and alcohol abuse, sexual promiscuity and delinquency, though our data do not allow us to comment on the exact extent of this problem.

We are facing, potentially, a very serious problem with our nation's youth, many of the most concerned of whom are potential future leaders. Over half of them have never had an opportunity to talk with any adults about their fears. Forty-one percent also state that they receive insufficient information about nuclear war in school.

There appears to be a communication gap which adolescents are filling with fear instead of hope. This is occurring because we are not talking to youth about the nuclear threat and we are not convincing them by word and deed that there is hope for their future. It is not true that adolescents care only about zits and the opposite sex! A very large number are very concerned about the future state of the planet which they and their offspring will inherit from the current ruling generations.

Why don't we talk to our teens and reassure them on this issue? It is because we are uncomfortable, worried, afraid; whether consciously or not, about our own future. The kids know it. Over half the teens we asked believe their parents are also worried or very worried about nuclear war. And like other topics about which adults are uncomfortable: human sexuality and death and dying for example, the threat is ignored in the home and in classrooms. The inevitable result is misinformation, despair, unwarranted fantasies and, sometimes, socially undesirable behavior.

We believe now it the time to begin talking honestly with youth about the threat of nuclear war—about our own real fears, our hopes and about what can be done to prevent the Holocaust. This must happen in churches, in schools, in communities and in families throughout the US and indeed throughout the world.

We do believe this is a nationwide problem of youth fears and disaffection, and perhaps a world-wide problem, so that over the next year we hope to expand our preliminary data by administering our questionnaire throughout the US and overseas. In fact, the questionnaire is hopefully being given to Russian adolescents at this very moment. We will report this data as it becomes available.

It is often said that one should listen to the wisdom of the young. The fact is, many of our youth are very afraid that there will be a nuclear war between the US and the Soviet Union. We do not know if this fear is new or increasing, only that it is real, astonishing in magnitude and it is probably mirrors our own adult fears. The question before us is: will we overcome our fears, listen to and talk with our nation's youth, and convince them—and ourselves—that there is hope for our future?

## ACKNOWLEDGMENTS

Special thanks to Wayne Shoumaker for this invaluable assistance with our statistical analysis. Alice Powell, MA, MFCC helped design and administer the questionnaire. In addition, some of the subsample data cited is from extra questions which Ms. Powell is asking as part of her doctoral thesis work in Psychology. Katheen West, MPH, a doctoral candidate in Public Health typed the original "final draft" of the study and was of invaluable help in designing the demographic questions. Dree Newman, MD, Rod Boone, PhD, Louise Miller, MPH and Charlene Richards, RN were also of constant help during the designing of the study.

TABLE I.—BASIC DEMOGRAPHIC INFORMATION ON RESPONDENT SAMPLE. NUMBER OF RESPONDENTS IN SAMPLE WAS 913. COLLECTED FROM VARIOUS SCHOOLS IN NORTHERN AND SOUTHERN CALIFORNIA

| | Percent | Cumulative |
|---|---|---|
| Grade in school: | | |
| Seventh | 5.5 | 5.5 |
| Eighth | 8.9 | 14.4 |
| Nineth | 7.6 | 22.0 |
| Tenth | 15.7 | 37.8 |
| Eleventh | 31.1 | 68.8 |
| Twelfth | 31.1 | 99.9 |
| Sex and age of students: | | |
| Male 50.72 percent (average age = 16.07). | | |
| Female 49.28 percent (average age = 16.18) | | |
| Race of students: | | |
| Latino | 11.5 | 11.5 |
| White | 47.9 | 59.4 |
| Asian | 17.3 | 76.7 |
| Black | 15.5 | 91.8 |
| Native American | 1.8 | 93.6 |
| Other | 6.4 | 100.0 |
| | Male | Female |
| Education of male and female heads of household (percent): | | |
| 6 or less (grade schedule) | 4.9 | 4.8 |
| 7 to 11 (high school) | 8.6 | 8.7 |
| 12 (high school graduate) | 14.7 | 24.3 |
| 13 to 15 (college) | 19.4 | 23.2 |
| 16 (college graduate) | 25.4 | 21.3 |
| 16 and over (professional) | 16.9 | 11.2 |
| Don't know | 10.2 | 6.5 |
| Employment status of male and female heads of household (percent): | | |
| Employed | 90.3 | 72.8 |
| Unemployed | 4.5 | 11.1 |
| Disabled | 1.6 | 1.5 |
| Retired | 2.9 | 9 |
| Homemaker | .2 | 12.9 |
| Don't know | 5 | .8 |

TABLE 1.—BASIC DEMOGRAPHIC INFORMATION ON RESPONDENT SAMPLE. NUMBER OF RESPONDENTS IN SAMPLE WAS 913. COLLECTED FROM VARIOUS SCHOOLS IN NORTHERN AND SOUTHERN CALIFORNIA—Continued

| | Percent | Cumulative |
|---|---|---|
| | Percent | Cumulative |
| Approximate grade point average of students: | | |
| D–C | 14.3 | 14.3 |
| C–B | 47.2 | 61.4 |
| B–A | 34.8 | 96.3 |
| A | 3.7 | 100.0 |

TABLE 2.—MEAN RATINGS AND PERCENT OF RESPONDENTS WHO RATED "WORRIED" OR "VERY WORRIED" ON EACH OF THE 20 ITEMS

| Item | Mean | Percent worried or very worried |
|---|---|---|
| 1. Getting cancer | 2.00 | 26.4 |
| 2. Earthquakes | 2.06 | 30.2 |
| 3. Getting hooked on drugs | 1.70 | 21.9 |
| 4. People not liking you | 2.08 | 29.4 |
| 5. Not being able to find a job someday | 2.47 | 58.1 |
| 6. Having to move somewhere new | 1.83 | 21.5 |
| 7. Getting (or making someone) pregnant | 1.91 | 25.9 |
| 8. Nuclear war | 2.69 | 58.2 |
| 9. Looking ugly | 2.10 | 31.7 |
| 10. Parents divorcing | 1.91 | 29.3 |
| 11. Pollution | 2.19 | 34.2 |
| 12. Being a victim of a violent crime | 2.52 | 59.5 |
| 13. Parent dying | 3.16 | 74.4 |
| 14. Nuclear power plants leaking | 2.29 | 40.9 |
| 15. Your own death | 2.41 | 45.6 |
| 16. World over-population | 2.00 | 29.3 |
| 17. Becoming very sick or crippled | 2.63 | 52.7 |
| 18. Your family not having enough money | 2.29 | 39.8 |
| 19. People starving in the world | 2.51 | 48.9 |
| 20. Getting bad grades | 2.95 | 68.1 |

TABLE 3.—PERCENT OF RESPONDENTS ON EACH ITEM WHO RATED EACH ITEM AS THEIR "GREATEST WORRY"

| | Percent | Cumulative |
|---|---|---|
| My greatest worry is: | | |
| Parents dying | 29.3 | 29.3 |
| Nuclear war | 12.4 | 41.7 |
| Bad grades | 10.2 | 51.9 |
| Not finding a job | 9.0 | 60.9 |
| One's own death | 5.9 | 66.8 |
| Not being liked | 5.2 | 72.0 |
| Being a victim | 3.9 | 75.9 |
| Earthquakes | 3.4 | 79.3 |
| Becoming sick/crippled | 3.2 | 82.5 |
| Pregnancy | 2.5 | 85.0 |
| Parents divorcing | 2.5 | 87.5 |

TABLE 3.—PERCENT OF RESPONDENTS ON EACH ITEM WHO RATED EACH ITEM AS THEIR "GREATEST WORRY"—Continued

| | Percent | Cumulative |
|---|---|---|
| No money in family | 2.4 | 89.9 |
| Getting cancer | 2.4 | 92.3 |
| World starvation | 1.5 | 93.8 |
| Pollution | 1.3 | 95.1 |
| Drug addiction | 1.3 | 96.4 |
| Moving somewhere | 1.3 | 97.7 |
| Looking ugly | 1.1 | 98.8 |
| Nuclear leaks | .8 | 99.7 |
| World overpopulation | .3 | 100.0 |

Chairman MILLER. Dr. Lifton.

## STATEMENT OF ROBERT JAY LIFTON, M.D., FOUNDATIONS' FUND CHAIR FOR RESEARCH IN PSYCHIATRY, PROFESSORSHIP, YALE UNIVERSITY SCHOOL OF MEDICINE

Dr. LIFTON. Thank you, Mr. Chairman. I appreciate the opportunity to testify before this committee. It has been a very long morning and it is not over yet. I want to perhaps give a general statement that reflects 25 years of study I have done on psychological aspects of war and peace, of extreme historical situations and of nuclear weapons including Hiroshima, questions of Vietnam, and more recently the Nazi Holocaust. In all of this children have been central.

Also, I want to depend upon research that has been described to you by others this morning. I want to say first that the recent research that has been done and that has been discussed this morning, though incomplete and imperfect, shows without any reasonable doubt the extensive fear of children about nuclear holocaust. I want to make mention briefly this morning of the five psychological areas involving children that are of central and immediate concern to our society, and these are derived again from this experience and from the specific recent research.

First, the sense of futurelessness. There is increasing evidence, it has been in the material all morning, that young people doubt they will be able to live out their full lives. They are affected by what I call imagery of extinction that now haunts our society—the image of annihilating ourselves as a civilization, or possibly even as a species, with our own technology and by our own hand.

Now no one behavior pattern or symptom of young people can be said to be caused only by this imagery of extinction, our nuclear fear. I want to emphasize this. You need a double model. There are always the everyday nitty-gritty concerns of kids growing up—concerns about family, about school, about self-worth, and about friendships and all the things that young people struggle with but now entering into those concerns is this imagery of extinction. So although it does not cause any single symptom, no pattern of living is entirely free of it and that is the model we need and we can make more accurate statements from that kind of model.

Then we can note the principle of loss that Dr. Elkind mentioned. While nuclear threat threatens overall and total loss, it also suggests the total loss of the kinds of markers he mentioned. How can you take in or give some kind of reasonable perspective and place toward the threat of destruction of everything? We have to have ways of looking at our own relationship to the future as individual human beings, and more recent psychological study has adopted models that look upon issues of endless human connectedness as central to our psychological well being in the here and now.

We have experienced this symbolizing of larger human connectiveness through family continuity, through work or works or general human impact of our lives which we know incidentally to go beyond our finite lifespan through unending spiritual principles of the great religions, through eternal nature and through direct moments of transcendence or larger meaning. These are our ties to the great chain of being which are important on an everyday basis and they are important for children to begin to develop during childhood and then to manifest and become conscious of in adolescence and adulthood.

Now we still hold to these ties to the great chain of being but we have doubts and all these recent research findings suggest deep questions on the part of young people about what, if anything, can last and about what, if anything, has meaning. We have only begun to examine the ramifications of the sense of futurelessness. We are really touching the tip of the iceberg now and we need much more research but everything we know about human behavior tells us that they will be profound.

Second, the double life. Young people, like the rest of us in our society, come to live a double life. On the one hand they know they go about their everyday activities—studies, exams at school, pleasures and struggles at home—but on the other hand they express the fearful sense that all of this is a sham, they are preparing for nothingness, that there will be no adult existence, and again you have heard that expressed both by the children and in the research data.

Now this double life affects the rest of us as well but children experience it with particular intensity because they lack the psychological defenses and rationalizations that adults are so skillful at constructing. The research data suggest that many young people have special difficulty accepting this double life and feel confused by it, cannot understand or absorb adults' seeming acceptance of it, and that is a very important point I think.

This relates to children's and adolescents' attitude toward death and to confusion about death. Of course the fact that we die and that death is final is one of the more difficult lessons of childhood and the capacity to learn this lesson which we all do only imperfectly depends on death having some appropriateness: the idea that one dies only after a great deal of living, the old people die rather than young ones.

But now comes this imagery of massive, grotesque extermination that consumes the young as well as the old and this extermination would affect those who have not lived their lives as well as those who have so inevitably ordinary, necessary, inevitable individual death which we all have to learn to accept on the one hand becomes confused with grotesque, meaningless, absurd death which we need not accept and indeed should and do reject. This additional confusion to an already difficult subject of absorbing the idea of death for young people in turn impairs their psychological capacity to live.

Third, generational problems, and these are of course already formidable and again nuclear threat does not cause in itself generational problems, it intensifies them. So amidst all the talk of national security we experience, as John Mack said, a considerable threat to family security. Now I would stress that as parents we take on a fundamental responsibility that is both psychological and even biological, that responsibility of seeing our children safely into adulthood.

I can say, for instance, that when I interviewed people whose kids had been killed in Hiroshima there was no more bereaved, more irreconcilable kind of experience than on the part of those parents. We are supposed to see our kids safely into adulthood and we are supposed to die before they do but now we feel ourselves highly uncertain about our capacity to carry out that responsibility and children sense that parental doubt, it is in all the material. They associate it with an overall inability on the part of the adult world to guarantee the safety of the young.

So from both sides adult authority is further undermined, it does not help alone, as Dr. Elkind wishes. We all wish that adult authority could be clear and simple and children could accept adult authority and just be children and be happy to have a longer childhood. The fact is that these issues intrude into our culture, the kids live in our culture and we are hiding our heads in the sand like ostriches if we don't note that and deal with it with them.

Now of course there is much resentment—this is in the Beardslee-Mack study as John Mack brought out—on the part of the young toward the old, toward the older generation for this legacy of threat and futurelessness and I have been able to confirm this anger in workshops that I have done with young people. Strong rage toward the older generation, toward political leaders who have so much control, as the kids say, over our lives and our deaths and, as one adds, "They don't even know what they are doing." Often there is an added sentiment that is even more disturbing that one young girl brought to me, "We feel ourselves to be doomed."

Now what she meant was doomed as individuals as a generation, doomed by the world handed them by their parents' generation. It is not an absolute feeling, it is not their only feeling, it is a strong image and sentiment and fear.

A study by Michael Carey, a psycyologist and writer, reveals another dimension on the part of sentiments of the young toward their parents, the sense of absurdity and craziness at this world of nuclear threat being handed down to the younger generation. Sometimes this can add to the fuel of protest but other times it can take much more unhealthy directions because there is a sense that one's own craziness as a young person joins that overall social craziness with a wild identification with the bomb and there could be fascination and even a wish that the bomb be dropped so that one might witness the strange, spectacular experience, the ultimate nuclear high, and put an end to all anxious curiosity, as well as to everything else one might add.

Fourth, the nuclear threat becomes part of the larger threat posed by war and violence to our children and to the rest of us as well. Now on Hiroshima in 1962 I interviewed a number of people who had been small children when the atomic bomb had been dropped that was 17 years earlier. As children they demonstrated the special sensitivity of young tissues and minds to the physical and psychological effects of the bomb. Children are more sensitive to any kind of influences, physical and psychological. They are also more resilient but they have that extraordinary sensitivity.

Now those children, or people who were children at that time, expressed to me in these interviews fear and dread about their atomic bomb exposure because they placed themselves in accounts of the event they later heard and more importantly they were painfully aware of the potentially lethal after effects of radiation to which they knew themselves to be greatly susceptible.

Also, adult survivors of catastrophies in general can transmit various psychological effects to children born years later. Now there is systematic and extensive research on so-called second generation holocaust survivors, children of survivors of Nazi death camps who show many psychological manifestations in the second generation and it is now anticipated in the third generation as well. We are seeing similar things in a beginning way in veterans' hospitals, effects transmitted by Vietnam veterans to their children—survivor effects being transmitted to subsequent generations, and the same was true in Hiroshima.

Still more recently investigators and journalists have become sufficiently mobile to record worldwide suffering of children through war and terrorism. For instance, a recent book, "Children of War," by Roger Rosenblatt of Time magazine describes common experiences and responses of Irish—Protestant and Catholic—Israeli, Palestinian, Cambodian and Vietnamese children and he went all over the world on a quick trip to interview these children in these different places, all of whom had been exposed to grotesque killing and dying.

Now some of these children sought revenge but the majority of them sense the wrongness of it all and wished to commit themselves to an end to killing. There can be wisdom in children and I rather disagree with Dr. Elkind that we should tell them what to do and not listen to them in our councils.

We respond as adults with special intensity to the suffering and the courage of children. We need only look at Anne Frank's diary and its importance to the adult world because it is an expression of love and hope in really a small triumph of the human spirit in the face of Nazi mass murder. I think it is of interest to this committee that there is a similar figure in Hiroshima, Sadako Sasaki, who became a legend in that city and throughout Japan. She was just 2 years old at the time of the bomb but she showed no ill effects originally and was said to have been an unusually vigorous child until stricken with leukemia 10 years later at the age of 12.

She then struggled to sustain her life by folding paper cranes, in keeping with a Japanese folk belief that since the crane lives a thousand years, the folding of a thousand paper cranes cures one of illness. When she died, still 36 cranes short of that number, so the legend goes, her classmates added the missing paper cranes and placed the full 1,000 of them in her coffin with her. The monument to Sadako is perhaps the most popular structure in Hiroshima's Peace Park, always covered with paper cranes and surrounded by children.

That story has, of course, been told and retold in many versions because it symbolizes the bomb's desecration of what we take to be the pure and the vulnerable—of childhood itself. And in virtually every culture, not just our own, the killing and harming of children is an ultimate evil. As adults we depend upon children to represent what is most precious to us in our lives and in our society.

Finally, fifth, what can we do about these threats to children and especially about nuclear threat? Well, we can begin with a simple principle—the sharing of knowledge. This has been brought forward by other presenters and I much agree with it. And there has been beginning research showing that the sharing of knowledge sensitively offered at proper age specific ways and with sensitivity to individual differences helps young people adapt to information and to threats, including knowledge about the European Holocaust and knowledge about nuclear threat. I have been able to confirm this in my conversations with young people all over the country at secondary schools and at campuses that I have visited. They are less overwhelmed when they know something about these things, more able to consider them, to take a stand about them and to take some kind of constructive action.

Often I am telephoned by journalists who say, "Dr. Lifton, we have read about the research showing that children are being harmed by nuclear threat. How can we prevent them from knowing about such dreadful things?" The answer, of course, is that they know. They begin to take in—whether from the media, their families or their young friends—images of nuclear holocaust as early as the age of 5 or 6, and I would say earlier. And while they can hardly grasp these images at first, and move in and out of them, and incorporate them into their play, the images are nonetheless there and they begin to take their toll.

So our choice then is not whether we wish young children to know or not to know about the nuclear threat, but rather whether we can have the wisdom and responsibility as adults to share knowledge with them and bring them into our counsels.

In the case of nuclear weapons there is an added responsibility. Children ask of us, as these research studies show again and again, commitment to diminishing the threat. They seek collaboration between the generations in preventing nuclear holocaust. Children are not easily fooled in regard to profound emotional currents, their responses are not clouded by ideological and technological claims. Their sense of threat will diminish only when that threat has itself diminished. We have to say this and we have to know this.

Now Americans have shown widespread concern about the harmful effects of the nuclear arms race on our children. It is a concern not only for them, the children, but for everyone's future. In that concern we express the traditional wisdom that a family, or a nation, reveals its deepest truths about itself in its treatment of its children.

[Prepared statement of Dr. Robert Jay Lifton follows:]

## Prepared Statement of Dr. Robert Jay Lifton, M.D., Foundations; Funds for Research, Professor of Psychiatry, Yale University School of Medicine

At a time of great national agitation and concern, it is particularly important to look at the implications of the arms race in general, and especially its effects upon children. My testimony is based upon more than 25 years of study of the psychological aspects of war and peace, of extreme historical situations, and of nuclear weapons; and also upon recent research done by others in these areas.

Children and adolescents have been central in all of this work, whether as victims, participants or as important symbols of the adult culture. This morning, I want to make brief mention of five psychological areas involving children that are of great immediate concern to our society.

### 1. THE SENSE OF FUTURELESSNESS

There is increasing evidence that young people doubt that they will be able to live out their full lives. They are affected by the imagery of extinction that now haunts our society—the image of annihilating ourselves as a civilization, or even possibly as a species, with our own technology and by our own hand. No one behavior pattern or symptom can be said to be caused entirely by this imagery of extinction—young people still go through ordinary struggles around family, work and play, achievement and self-worth—but neither is anything in their or our lives entirely free of this disturbing image.

Our relationship to the future is ordinarily expressed in our sense of endless human continuity—through family and other human groups, through work and "works" and the general human impact we make in our lives, through unending spiritual principles in relation to the world's great religions, through our ties with eternal naturel and through moments of direct experience of transcendence or larger meaning. Of course, we still hold to these ties to the Great Chain of Being, but we feel them to be in doubt, and children experience these doubts with their special sensitivity, sensing they have most at stake. Those doubts enter into beginning life plans which involve family and jobs. In all these recent research findings, there are deep questions on the part of young people, about what, if anything, can last, about what, if anything, has meaning.

We have only begun to examine the ramifications of this sense of futurelessness. But everything we know about human behavior tells us that they are profound.

### 2. DOUBLE LIFE

Young people, like others in our society, come to lead a "double life." On the one hand they go about their everyday activities—their studies and exams at school, their pleasures and struggles in their families, their preparations for adult life. But on the other hand, they express the fearful sense that all this is a sham, that they are preparing for nothingness, that there will be no adult existence. The double life exists for the rest of us as well; we know that our world is such that at any given moment everything and everyone we have ever touched or loved could be annihilated, yet we go about business as usual as though no such danger existed.

Children experience their double life with particular intensity because they lack the psychological defenses and rationalizations that adults are so skillful at constructing. The research data suggest that many young people have special difficulty accepting this double life, feel confused by it, and cannot understand or absorb adults' seeming acceptance of it.

The double life is associated with intense confusion about death. The fact that we die is one of the difficult lessons of early childhood. The capacity to learn that lesson, which we all succeed at only imperfectly, depends upon death having some appropriateness: the idea that one dies after a good deal of living; that old people die rather than young ones.

But now death becomes associated with massive, grotesque extermination that consumes the young, as well as the old, those who have not yet lived their lives, as well as those who have. Inevitable individual death becomes confused with unacceptable meaningless annihilation. This further complicates young people's already difficult task of coming to terms with death which, in turn, impairs their psychological capacity to live.

### 3. GENERATIONAL PROBLEMS ALREADY FORMIDABLE ARE INTENSIFIED IN VERY SPECIFIC WAYS

Amidst all the talk of "national security," we experience a considerable threat to family security. That is, as parents, we take on the fundamental responsibility, both psychological and biological, of seeing our children safely into adulthood. Now we feel ourselves highly uncertain about our capacity to carry out that responsibility. Children sense that parental doubt and associate it with an overall inability of the adult world to guarantee the safety of the young. From both sides adult authority is further undermined and suspicion between the generations can increase.

There is much resentment on the part of the young toward their parents' generation for its legacy of threat and futurelessness. As one 15 year old girl told me during a workshop, "It makes me so angry when I think that these people (our political leaders) are making decisions that affect (the lives) of all of us. They don't even know what they are doing!" Sometimes, the youngsters put it in male/female terms: "It makes me so mad—it is a masculine thing—competing to see whose got the biggest bomb." But the overall sentiment expressed by the first girl can be "We feel ourselves to be doomed." That is, doomed as individuals and as a generation, and doomed by the world handed them by their parents' generation.

A study by Michael Carey, a psychologist and writer, reveals another sentiment on the part of the young toward their parents: that of the absurdity and "craziness" of the older generation in contributing to the threat of nuclear holocaust. Sometimes that sense of absurdity and craziness can take a very unhealthy direction in the young, as Carey's study also shows. A few come to identify with the wierd, all powerful device we call by the name of nuclear weapons, so that one's own craziness joins that of the bomb. The resulting fascination can extend to a wish that the bomb be dropped so that one might witness this strange spectacular experience, the ultimate "nuclear high," and put an end to all anxious curiosity (as well as to everything else, one might add).

### 4. THE NUCLEAR THREAT BECOMES PART OF THE LARGER THREAT POSED BY WAR AND VIOLENCE TO OUR CHILDREN AND TO THE REST OF US AS WELL

In Hiroshima, I interviewed a number of people (in 1962) who had been small children when the atomic bomb was dropped. As children, they demonstrated the special sensitivity of young tissues and minds to the physical and psychological effects of the bomb. Even those who had been too young to remember the event expressed fear and dread 17 years later: they placed themselves in accounts of the event they later heard, and even more importantly, they were painfully aware of the potentially lethal aftereffects of radiation to which they knew themselves to be greatly susceptible.

Moreover, adult survivors of catastrophies can transmit various psychological effects to children born years later—as was also the case in Hiroshima. The same is true of children of Nazi death camp survivors as has been demonstrated by many studies made recently in this country. And work now being done at veterans' hospitals is beginning to demonstrate similar transmission of survivor effects to the children of Vietnam veterans.

Investigators and journalists have recently been mobile enough to record worldwide suffering of children through war and terrorism. For instance, a book, "Children of War", by Roger Rosenblatt of *Time* magazine describes common experiences and responses of Irish (Protestant and Catholic), Israeli, Palestinian, Cambodian, and Vietnamese children, all of whom had been exposed to grotesque killing and dying. While some of the children sought revenge, the majority sensed the wrongness of it all and wished to commit themselves to an end to killing.

We respond as adults with special intensity to the suffering and the courage of children. Anne Frank's expressions of love and hope in her diary symbolized a small triumph of the human spirit in the face of Nazi mass murder. And there is a similar figure in Hiroshima, Sadako Sasaki, who has become a legend in that city and throughout Japan. Just two years old at the time of the bomb, Sadako showed no ill effects originally and was said to have been an unusually vigorous and athletic youngster until stricken with leukemia 10 years later. The twelve year old girl then struggled to sustain her life by folding paper cranes, in keeping with a Japanese folk belief that since the crane lives a thousand years, the folding of a thousand paper cranes cures one of illness. When she died, still 36 short of that number—so the legend goes—her classmates added the missing paper cranes and placed the full one thousand in her coffin with her. The monument to Sadako is perhaps the most popular structure in Hiroshima's Peace Park, always covered with paper cranes and surrounded by children.

The story has been told and retold in many versions, including a widely distributed film, and has come to symbolize the bomb's desecration of the pure and vulnerable—of childhood itself. And, in virtually all cultures that desecration—the killing and harming of children—is an ultimate evil. For as adults, we depend upon children to represent what is most precious to us in our own lives and that of our society.

### 5. FINALLY, WHAT CAN WE DO ABOUT THESE THREATS TO CHILDREN AND ESPECIALLY THE NUCLEAR THREAT?

We can begin with a simple principle: the sharing of knowledge. Research by Roberta Snow of the Harvard University School of Education, and others, demonstrates the psychological as well as the intellectual and moral value of exposing children to systematic information about such disturbing issues as the Nazi Holocaust and our present nuclear threat. I have been able to confirm this finding in talks with young people at many secondary schools and colleges: the more they know about the various dimensions of nuclear threat and possible resolutions, the more poised and less overwhelmed they are, and the more able to examine and act maturely on these issues.

I am sometimes telephoned by journalists who say to me, "Dr. Lifton, we have read about the research showing that children are being harmed by nuclear threat. How can we prevent them from knowing about such dreadful things." The answer, of course, is that they know. They begin to take in (whether from the media, their families or their young friends) images of nuclear holocaust as early as the age of five or six, possibly earlier. And while they can hardly grasp these images at first, and move in and out of them, and incorporate them into their play, the images are nonetheless there and begin to take their toll.

Our choice then is not whether we wish young children to know or not to know about the nuclear threat, but rather whether we can have the wisdom and responsibility to share knowledge with them and bring them into our counsels. If done properly, with specific sensitivity to age groups and individuals, and by combining the message of danger with assertions of human possibilities, such teaching is the very opposite of a "death trip." It is indeed an expression of hope.

The principle is comparable to the candor needed in dealing with children of divorce; and in approaching with children, whether at home or in schools, subjects such as sex and death. Studies have demonstrated that children derive considerable psychological gain from openness and accurate information given with sensitivity to what a child is ready for and asking.

In the case of nuclear weapons, there is an added responsibility. Children ask of us, as these research studies also demonstrate, commitment to diminishing the threat. They seek collaboration between the generations in preventing nuclear holocaust. For children are not easily fooled in regard to profound emotional currents. Their responses are not clouded by ideological or technological claims. Their sense of threat will diminish only when that threat has itself diminished.

Americans have shown widespread concern about the harmful effects of the nuclear arms race on our children. It is a concern not only for them, but for everyone's future. And in that concern, we express the traditional wisdom that a family, or a nation, reveals its deepest truths about itself in its treatment of its children.

Chariman MILLER. Thank you, Dr. Lifton.

I want to thank all the members of the panel.

It is clear to me that the testimony of this panel will contribute greatly to public discussion of the issue of nuclear war and its impact on our children. The combined testimony suggests to me that fear of war is one issue that we might prefer not to discuss with our children when in fact it should be discussed to alleviate the tensions and possible ill effects.

Dr. Goldenring, in your summary you suggest that there must be a means to act on this fear for the children, that while apparently there is no hard evidence, there is anecdotal evidence that very often children and adolescents particularly, act out in certain unfortunate ways because there is a belief of hopelessness.

People who man hotlines for troubled youth have told us of the sense of hopelessness felt by some youth, which explains certain kinds of unfortunate behavior.

My question is this. Certainly fear of nuclear war is one of many pressures that young people feel. Others, of course, include fear of divorce in the family, fear of a parent dying, teenage pregnancy, getting a job, good grades, et cetera.

Does the research show, or does it suggest, that fear of war is a significant driving force on the acting out of—is children, whether it is drug seeking or suicide or bad grades or what have you, recognizing that our childhood is a mosaic made up of many, many experiences and pressures.

Any member of the panel is certainly welcome to respond.

Dr. GOLDENRING. I would like to say that how we tried to get at that was with a couple of questions I mentioned that were very imperfect. It looked to us, this is just preliminary data, and very difficult to analyze; that some 5 to 15 percent of the kids may at least be thinking about nuclear war to a degree that might affect their behavior. Whether it actually affects their behavior or not we cannot really say at this point and I think it is a very fruitful area for research.

Other fruitful areas include whether taking any kind of stand on this issue, taking power in a sense, can alleviate some of this anxiety. We have not been able to figure that out yet because we could not find enough teens who are actively doing anything about this issue, possibly because of all the "psychic numbing" we all practice. I think you have to recognize that again that this is a fear added on top of fears. It was not there before 1945, when the atomic bomb was dropped. It undercuts the whole mosaic of loss that Dr. Lifton has been talking about and I think his summary was absolutely beautiful. The fact is that this nuclear war worry is a contributor to the whole question of loss for teens. How much it contributes I don't think I can say at this point but the probability is that for some it is very significant. How many I cannot tell but that is a very good research question, I wish that there was some commitment to doing this kind of research. We have done ours on a shoestring budget. I also believe I speak for other pediatricians in saying that we are concerned about doing research on this issue.

Chairman MILLER. Anyone else on the panel care to comment?

Dr. LIFTON. I just add a point to that in agreement with Dr. Goldenring. We have certain parts of the puzzle—that is, we know that suicide in young people, or in older people, too, for that matter, occurs with despair even more than with depression, they are not quite the same thing. Despair involves the loss of larger human connectiveness. We know that the nuclear threat impairs that sense of larger human connectiveness. We don't have hard evidence that the nuclear threat as such has increased youth suicide or other forms of suicide but we have lots of reasons to be worried about that combination, that interaction, and the research is needed but we have something very suggestive and worrisome.

Mr. ELKIND. I guess we have a fundamental disagreement. Mr. Lifton feels that the nuclear threat is a universal kind of thing with young people today and that that is interacting with all the other stresses. In my own work with young people I again and again get the impression that what they are most concerned about is the lack of parenting and again and again in groups of young people I don't hear anything about nuclear war, I hear about if they're having problems, as soon as they are old enough to do something for themselves they do it for themselves and what I hear these kids crying out to me for is for somebody to do something for them occasionally which they could do for themselves but just because a parent loves them and they want you to make reference that since he was 6 that some day he is 12. I would love my parents to make breakfast for me sometime, not because I cannot do it myself but just because they can show it.

Chairman **Miller**. Are you suggesting, Doctor, that because you have not seen this in your practice that it does not exist?

Mr. **Elkind**. I just say that I don't think this is endemic. I think certainly it is an issue and it is there but what I have seen of kids is that the parenting issue, the authority issue, is the most significant one that kids are not having today. Certainly we cannot have authority in the old way, I didn't mean that, but certainly to the extent that parents can be parents and can take responsibility and can let kids be kids, I think kids are asking for that. They don't want to have all responsibility thrown upon them. They certainly want to be treated as adults, they want to have their opinions heard, but they also want to feel that they are in a special place.

Chairman **Miller**. That by failing to discuss this, far more responsibility is placed on the child than if there was an open discussion. It is similar to suggesting that teenagers ought to just sort of figure out what the consequences of sexual activity are. I don't understand that.

Mr. **Elkind**. I think we have to distinguish between discussion, which I am all for, and decisionmaking. Certainly you want to discuss with a 4- or a 6-year-old which parent they might want to go with in a divorce but adults would make that decision, not the 4- or the 6-year-old. Certainly you want to hear the child's preference and you want to take that into account but that is an adult decision. The adult has the knowledge and the wisdom of which parent that child should go to. Certainly we want to hear about children's concerns about sexuality, about drugs, and we want to talk and communicate but hopefully, too, we as adults who are more mature should have some decisionmaking.

Chairman **Miller**. I fail to understand how you arrived at the conclusion that with this hearing or testimony we are suggesting children should be making whatever the decision is that you would have them make.

Mr. **Elkind**. I gather that there is some decision that part of the hearing or the testimony here had to do with some of the minority members that suggested that this would be used politically as a policy issue or perhaps suggesting that this is one reason for the hearing.

Chairman **Miller**. The suggestion of the hearing is that we ought to listen to the children and ought to hear what is on their mind as we have a number of other times. One of my concerns is whether or not there is a potential connection between their concerns and their current or future behavior, depending on their age. I don't pretend that such a correlation can be made at this time. The question is do we know enough to justify a continuing concern with regard to the impacts of these kinds of fears or anxieties on children. That is the purpose of the hearing.

Mr. **Elkind**. There is no question in my mind. As I said, one of the significant things about young people today that we haven't seen in the past is that ordinarily they could accommodate or assimilate, have a sense of psychology of gain before they dealt with the psychology of loss.

Chairman **Miller**. Exactly.

Mr. **Elkind**. Now I think young people are dealing with the psychology of loss before they fully establish the psychology of gain but that psychology of loss has more to do, it has become more complex and broad than the nuclear holocaust or with the image of the future.

Chairman **Miller**. I think that all of the testimony has suggested that this is not the single most important event in a child's life, that loss of parent or other is more significant.

Mr. **Elkind**. That is the point I am making.

Chairman **Miller**. Yes. I think that that is very important. As we continue to look at the conditions of America's children, including obviously many other topics as well, have to ask whether or not this too is a legitimate concern. It seems to me, given the numbers of children that express some concern that it is a matter of appropriate concern. This has nothing to do with children determining disarmament policies.

However, when you suggest that the testimony is a farce, I can point to numerous occasions where the testimony of children has caused the Congress to act far more expeditiously than they might have otherwise. For example, we know an amendment that was carried by Mrs. Boggs to help sexually abused children was passed after children came forth and talked about the problems of themselves, their friends and family. The children who came forth some years ago and testified about their living conditions in foster care helped bring about an entire rewrite of that law. We had heard from the experts for better than three decades but nothing had happened.

Dr. **Goldenring**. I think I would like to just make a quick comment that I really don't think that the other members of the panel have much disagreement with Dr. Elkind. Again I say, it is not that all the teenagers are going to jump off Key Bridge over this issue. There are a significant number of them, however, who are very worried and this may have considerable implications. That is what we are saying. I am not having anything to do with saying that kids should make adult decisions for us.

The other thing that I would like to comment on is that one of the problems that we all have in research and in our own clinical practices, is that which answers you get depends on who you ask what and when. That is specifically why I designed my questionnaire to ask kids about nuclear war in a way that they would not know what I was looking for but that would allow us to get them to comment on it and get around the psychic numbing that Dr. Lifton has shown time and again as present in all age groups. We don't want to think about this stuff. We don't want to think about our own deaths. We don't want to think about our parents' deaths. We will talk about what is going on at home—Dad and Mom are fighting and so on. That is a very immediate kind of threatening thing. But if you ask children, they generally are not going to tell you spontaneously that they are really concerned about their parents' death as a major issue. But it is there, you see, and it depends on what you ask them and under what context; you get them to admit to it.

Chairman **Miller**. Mr. Mack.

Dr. **Mack**. I wanted to stress the point that in no way are any of us, certainly not myself, suggesting that we are looking to children to tell us how we should design defense policy or how to achieve national security. What I think we are saying is that this is an area in which we are discovering that young people are deeply troubled, that the solutions for this of necessity come from what the adults do in the international domain. We are hoping that as this material, this information, comes forth that it will stimulate a deeper, broader consideration of what security means, that the way we are achieving security does not seem to be working for a lot of kids and that a dialog about how to approach these very difficult problems such as the United States-Soviet relationship will be looked at in different, more innovative, creative ways so that children won't be so troubled.

I want to make one other point about Congressman Marriott's comment about what gets in the textbooks. The textbooks until pretty recently have not had much to say about some of these other issues either like sexuality, like death and dying, like suicide, like divorce, and sometimes one has to be willing to ask young people about what they feel about that because it is characteristic of adults that we do not wish to know what is painful to our children and the textbooks tend to lag quite a ways behind what the kids are already troubled about so that it probably will have to wait for the textbooks of now or the future for these issues to become as prominent as they are emerging before us right now.

Chairman **Miller**. Mr. Marriott.

Mr. **Marriott**. Thank you very much.

I appreciate all of your testimony. I think I agree that we do need a solid database and what I learned today in your testimony is that psychiatrists are all over the ball field on this issue. We don't have a consensus and I think it is important for the committee to try to develop a consensus.

I guess one of the problems I have, or at least my own point of view, I think the biggest problem with kids today is adults. I have interviewed in the last month 200 kids and I am all over the board with these kids on this issue. If the child was taught by an adult to be positive, to have a purpose in life, to believe in a caring God, to look at things in a positive light, that kid is not concerned about nuclear war at all. If, on the other hand, you are teaching negative things, if parents are not parenting right, you have a whole different attitude with those kids.

It seems to me that one reason nuclear war is high on your list, if in fact it is, is because we as adults have put it up there. Where do the kids learn about nuclear war? Where do the kids learn about dying? Who is putting into kids' minds, "We are all going to be blown up and we cannot be positive about America?" See, I'm bullish on America.

I think if the kids are educated properly, they won't have all of this stuff. What do the kids see on TV all day? People walking around town with antinuclear signs. Sure, they are going to be concerned about nuclear war.

Here is a book that the committee put out. In 1979-80 when you were all sitting here telling us about the problems of kids, the No. 1 issue was the energy shortage. It does not even make the rankings today but it was the No. 1 issue then because we are all promoting the idea and concern. It seems to me that is what we are doing now with the nuclear war issue. We can either make the kids positive, give them something to look forward to, or we can scare the heck out of them. [Applause.]

Maybe you can comment on that. You are all the experts but it seems to me that from the 200 kids I talked to, if I said to them, "What are your five major concerns?" they never mention nuclear war. If I said, "Are you concerned about nuclear war?" every one of them said yes because that is all they have been hearing about for the past 2 years.

And then I interviewed, to make a long story short, a couple of schoolteachers who happened to be antinuclear activists. I can tell you what their kids were getting. They were not getting both sides of the issue as the good doctor said, they were getting all this antiwar "scare-the-kids to death" type thing.

I agree with you what we need is more education in looking for the solution. Sure, we are all concerned about dying, we are all concerned about nuclear war, but what we ought to do is concentrate on what to do about it, not just scaring each other to death over the issue.

So what about that? Are we the culprits? Are we the ones who ought to start being better role models? Maybe if we are more decisive, the kids won't have as many problems.

Doctor.

Dr. LIFTON. Well, Congressman Marriott, I appreciate your concern about children and their psychological well being and I certainly agree with you that their psychological well being has much to do with the assurance they are given and the opportunity for developing a secure sense of self in their family with their parents, but having agreed upon that I think I would have to differ from some of the things you say and point out that kids cannot grow up in some kind of family hothouse.

It is particularly characteristic of American society and it is part of our creativity that there is a great give and take between the culture and between increasingly younger people, it is part of the modern world and that means that kids get information from many places as has been evidenced in the presentations this morning. So a kid who has been trained or who has had the example in his or her parents of authenticity and integrity and believe in positive possibilities in life is just as likely to be outraged as any other kid by the possible threat of nuclear war. He or she hears about it over the media or from other information sources.

Many God-fearing people such as the recent evangelical meeting in California have taken strong stands worrying about the morality of nuclear war, as have, for instance, the Catholic bishops who are much concerned with the upbringing of children around positive possibilities of the human spirit and the spiritual issues.

It may be that we can come together, and I really do want to reach out to the entire committee, not to any segment of it, and say that it could be that nuclear weapons because they are so unprecedented make a new demand on how we can best express our responsibilities as adults and we can only do that by some kind of collaboration with young people in doing something about this terrible threat and that kind of collaboration, that kind of expression of being a good parent can only be true if we bring these issues into the open, if we discuss them, if we share them, and that is the gist of the research and of our statements this morning.

Mr. MARRIOTT. I have no problem with that. I think we all want to give the kids the knowledge, we want to give them both sides of the issue and we all agree that nuclear war is bad news but my point is we have an obligation to make kids feel good about themselves and feel good about the future and to have hope for the future and not to exaggerate problems that really we are going to do little about. I mean we are going to have nuclear weapons, the Soviets are going to have nuclear weapons, the French are going to have nuclear weapons so let's not all worry ourselves over nuclear weapons. They are there, it is a reality.

Now what we have to find out is how do we get all of these countries to disarm, if that is the issue, not to scare everyone to death about it. See, my problem is, look at all these headlines. No wonder the kids have nuclear weapons on their minds, that is all that we are talking about.

The point I am making is why don't we properly educate them, give them both sides and make them feel good about the future and not exaggerate this problem over any other because this is one of ten issues that kids are worried about. Now we have to reduce their stress level and that is the bottom line.

Dr. GOLDENRING. I think I cannot agree with you more. I am not a psychiatrist, I am just a poor country pediatrician and I get to see all the kids coming in on drugs and with sexually transmitted diseases and pregnant and all that stuff and I can tell you, I agree with you a hundred percent. The big problem in this country with kids is families. Families mean adults and again I could not agree with you more.

But when we asked the teens what their parents thought, the same thing came out. More than half of the adolescents said, "Yes, our parents are real worried about nuclear war, too."

The point is that this fear is out there in the world culture. We are getting preliminary data back from the Soviet Union, and the same worries are showing up. It is not just the United States. We expect to get it all over the world everywhere. It is a reality we have to deal with and it is added on to all the other things that the kids are having to deal with. I think that is our point. We want this to be looked at seriously. I could not agree with you more that we need to begin to talk about this in schools and families, and I want to be clear that we need to talk about it appropriately as a dialogue.

I do not wish my point of view on this thing to prevail. I wish the children could be presented with material they can look at themselves and think about and then take whatever action they feel appropriate, hopefully bringing it back to their parents and talking about it in their homes. You know, it is the same thing with death and sexuality issues and so on. I could not agree more that the place for this to happen is in families because that is where values are transmitted in this country and we all know that. It needs to be there but it needs to be in an upfront kind of way and that is why we think this material is serious for the consideration of this committee.

Mr. **Marriott**. My time is up and I will not go on but I just want to say it is my feeling after listening to all of this and seeing what I have seen that the average normal American kid is not preoccupied with dying from a nuclear explosion and yet that is the message that we have heard here today and I think we need to put it back into perspective.

Dr. **Goldenring**. I just have to say that that is not what my testimony was and I want to just try and clear it up a little bit. What I am saying is that a significant portion, at least one-third, of the adolescents are seriously worried about this and that to me is significant.

Mr. **Marriott**. From Los Angeles.

Dr. **Goldenring**. In Los Angeles and San Jose, and I am going to have to wait about 6 months before I can tell you about the rest of the country. And you may be right in the rest of the country, in your district, whatever. You may be right but I don't see any inherent reason why at least significant portions of the nation's youth would not be similar to San Jose and Los Angeles suburban areas. There is no inherent reason.

Dr. **Mack**. We have samples from Akron, Ohio; from North Carolina; from the Boston metropolitan area. They are coming in from different parts of the country. I don't think it is different from California.

Dr. **Goldenring**. Even from the rest of the world so I really have my doubts. I am not saying that the majority of the adolescents are seriously concerned and my data does not support that. I am saying that somewhere between a third and a half of them are seriously concerned, and that is enough concerned for me to be concerned about.

Chairman **Miller**. We have to move on to other members.

Dr. Lifton quickly.

Dr. **Lifton**. I just want to say one quick thing about hope. I have been much concerned about the issue of hope because as you know it is a psychological necessity and a theological virtue but we find that hopewise, not in burying our heads in the sand and just immersing ourselves in psychic numbing—I will finally say the word—but rather in confronting the issue and then struggling to do something constructive about it, and that is being bullish on America and that is expressing hope.

Chairman **Miller**. Congresswoman Boxer.

Mrs. **Boxer**. Yes. I want to stick to the testimony that we heard today, and the research that you have shared with us I want to thank you for that. I think the thing that leaps out at me at this hearing and as a Member of Congress is this whole idea of fear of the future, that children may feel futureless—a word which is horrendous in its implications.

We heard testimony by a father, a very caring father who when confronted by his 7-year-old son who said, "Daddy, will I have to go fight a nuclear war?" answered, "Not if I can help it," which is an excellent answer because it shows that there is hope, that, in fact, we as human beings can take this issue, deal with it, and restore the hope that there will be a future. I understand that as a parent and I think many of us do. We do try to impart to our children that sense of hope even with this situation.

I don't know many parents—I don't care if they march in a peace march or if they support Jerry Falwell—who wouldn't turn to their child and say, "Look, it is something to be concerned about but we can tackle that and we can make it happen."

So here I sit as a Member of Congress with my colleagues from both sides of the aisle. How do we now take that sense of concern, caring, and confidence that we want to instill in our children and do it in society? How do we tell the children that may not have a caring parent or whose parents, for example, are embroiled in a personal divorce situation and don't have the ability to sit down and restore that confidence? What can we do as a society, as an institution?

That is where I am having trouble and I want to hone in on one thing. This recent tragedy, atrocity of the shooting down of the jet liner which to me showed that suspicion and fear and isolation and lack of communication between people can cause such an incident, cannot be excused but it caused it. What can we do as a Government—this is politics aside, partisanship aside, whcever the President is—to really break through that isolation?

The question is, does it do better to pick up the hotline and say, "Let's sit down as a people and talk?" Now lots of things I hear around the Congress today are the opposite. Let's stop visas, let's stop any Soviet citizen from coming into our country. Is that the sort of thing that will increase the suspicion, fear, isolation? How can we break through this, politics aside? The really tough issue, How do we deal with it as an institution?

I would open that up to anyone who can answer in 2 minutes or less.

Dr. **Mack**. First I just want to respond to that question. That puts us a little bit on the edge of recommending policy to the Congress which is an edge over which I very much do not wish to go. I did just want to say what the kids keep saying which is that they look constantly to the adult generation and to the leaders to find better ways of communicating with their adversaries on the other side some way or another. They can be bad guys, they can be at fault, they can do terrible things, we know that.

I am as shocked by this atrocity, downing of KAL 007, as anybody is and yet the kids before this incident, because we don't have data since, have repeatedly been saying, "Talk to the Russians, sit down, talk out our difficulties, somehow find a way. How to find that way is not for us to be saying."

I just wanted to tell a story which goes back to the beginning of your point which has to do with the adult generation doing something that shows responsibility and activity and interest like Congressman Marriott was saying. This is a story of a second grade class in Seattle, Wash. There were 15 second graders and the teacher asked them whether they were afraid that they would die in a nuclear war. Fourteen said they would die and one did not expect to die so the teacher asked this one why he had written down something different and he said, "My daddy goes to meetings where they work on this problem and talk about nuclear war."

So I think the message is that some form of responsible activity on the part of parents is called for, whether it is Government leaders holding hearings like this, religious leaders talking about the issue in church, teachers giving good information in schools, parents talking with one another in the family in the ways that have been mentioned something that shows that adults don't have their heads in the sand, that they do care, they are involved, they are looking for more creative solutions to this problem.

Chairman **MILLER**. Congressman McKernan.

Mr. **MCKERNAN**. Thank you, Mr. Chairman.

Dr. Goldenring, I would like to ask a question based on your finding of about a third of the kids that you surveyed being mature in your estimation and also having a concern about a nuclear war. I think Congressman Marriott raised a good point when he talked about the main issue in 1979 being the energy crisis. Does it really surprise you that those whom you interviewed and considered to be more mature, that they would have a concern about nuclear war considering all of the testimony that we have heard and what has been said in the media about that issue?

Dr. **GOLDENRING**. It does not really surprise me that people would be concerned about that or that in 1978 or whenever, when everybody was standing in gas lines that they would have been concerned about energy. The numbers surprise me that responded as being concerned about the environment. It was larger than I thought was going to happen by quite a bit and I think that speaks well for our future generations that there are so many who are at such an early age concerned about their planet.

Mr. **MCKERNAN**. I guess that is the point I wanted to make. I agree with you that there seems to be an increase in the number of what you might consider to be mature teenagers in our society today compared to a generation ago, maybe 10 years ago. I am not sure whether that is good or bad. I have some concerns about kids growing up faster than they really ought to but I think it is a fact of life and it is one we have to address. Given that, I am not surprised that those who fall into that category would be concerned about it.

Dr. **GOLDENRING**. Let me just give you one quick piece of food for thought. The period of life that we call adolescence is something new on the planet. Just think about that for a second. It is not something that we really realize but adolescence is only a function of the industrial revolution and the postindustrial era. Before that at age 12 kids were full adults and before that they were engaging in full adult behavior by the age of 7 if you look back into history. So the question of whether children grow up too fast is a complicated one and historically they grew up a hell of a lot faster than they grow up now.

So that a lot of things that we experience, what the teens have "anomie" about is that they don't have a clear sense of where they are going to be 20 years from now. They are not on the family farm any more. The world is more complex and they have an extended period to consider these issues. They have to learn volumes of data in order to become adults and that is a new thing. Actually in the previous world, in the world of our ancestors, you got your bar mitzvah and you went out and you were a warrior, and that was it. That has changed so I am not sure the children are growing up any faster; in fact I think they are growing up slower if you really look at it. Nevertheless some of them are real concerned about the world as well as their own personal issues.

Mr. McKERNAN. Let me make both a comment, and ask an open-ended question, which I hope each member of the panel will either respond to at this hearing or think about it and get back to us at any time if the spirit moves any of you because I think we need your continued input as we address these issues.

As one of two members who has been here for all the testimony I would like to just try to indicate to each of you what I think you have seen going on here. I think that all of us are concerned about nuclear war. I think that is really the testimony that you have given us. I don't think, in spite of what some of you might have said, that you are really that far apart in what you are saying and I think that it is the one factor that has sort of joined with others to really create a sense of futurelessness. I really believe that we have a society that is concerned about what our future is going to be, for kids and for all society, if there is going to be one.

That is one I think that needs to be addressed and I think it is especially important that it be addressed by young people. But the concern that we have seen expressed in this committee which has been drawn down partisan lines is how is that going to be addressed. I think it was Dr. Mack who talked about the need for some objective teaching.

I think if you got below the surface of this hearing you would find that that really is what the concern is and it ought to be addressed. But if the fear of war or nuclear war is going to be addressed in a way that is going to become a partisan one, then maybe members, perhaps of my party, of this committee would not want to have it addressed in the school systems, with young people, because they are going to get a one-sided view in the opinion of many members of our committee.

I guess I will just pose that question to you: How do we get the kind of objective teaching, the kind of teaching that I think is important in our educational system of giving children the tools to make decisions for themselves and make sure that they receive all the facts so they can make their own decisions on what the proper course of action is. I think that is really what is underlying this hearing.

Chairman MILLER. As usual, I will give you 2 minutes.

Dr. LIFTON. Really, one thing that we all seem to be in agreement on that I would like to emphasize very much is the posity of effort that our society has made given the overwhelming nature of the problem. Now I think all the people on this committee and all the people on the two panels you have heard are serious people, whether kids or adults, who care about this issue but how much of our social resources, of the extraordinary resources we have in this country—resources of imagination and of creativity—have been devoted toward finding ways to blunt the impact to prevent nuclear war.

A second point I want to make is that when young people express fear of nuclear war it is a real fear about a real danger, it is not something that is just brought to them by a few activists making a lot of noise. Sometimes people seem to be saying that. But if you talk to the nuclear strategists, to our generals, to everybody concerned with nuclear weapons problems, they will all acknowledge the fear is very real and many would say the fear has increased although they would vary about how best to diminish the danger of war. So the fear of young people and of the rest of us about nuclear war is based upon a very real danger.

Finally, I think this society and our teaching capacities, we are capable of presenting in a very fair, complete, inclusive way as you are asking for, Congressman, and rightly so the issues of our nuclear war and the way to do that is to talk about what happened in Hiroshima and Nagasaki and why and perhaps the pros and cons of that event but more than that the significance of that event for us now and the different points of view that are held now about nuclear war, how to prevent it, the consequences of nuclear war, both the physics and the historical dimensions and the social psychological dimensions, to gradually expose our young people as they are ready along with other historical and psychological courses that they take in these issues. I think our teachers and our boards of education and our various cultural resources are quite capable of doing that and insofar as you advocate that, then I am very much in agreement with you.

Dr. **Goldenring**. I think let's get together and design some truly fair presentations on this and a number of other issues. I just would like to say that, for example, the Federal Emergency Management Agency put together a curriculum on civil defense and nuclear war and tried it out in Oakland. When I tried to get ahold of it they would not give me any of the material to examine. Their answer was that it also had turned out too biased in one direction in the opinion of many people. Therefore it was withdrawn.

We have not been doing a good job as adults in trying to present our debate on this issue to our young people and I think it is perfectly appropriate to do. But it is inappropriate to present only one side of such a difficult issue or any other difficult issue.

Chairman **Miller**. Congressman Morrison.

Mr. **Morrison**. Thank you, Mr. Chairman.

Let me start by saying that one of the main things that I hear from all of the testimony, especially this panel, is that it is not the difference of this issue from other troubling issues that children confront, but the similarity of it as something that needs to be coped with. Children need to acquire the tools to cope with it—that is key. We should not treat this as some issue that is put off to the side. Is that something about which there is a consensus that is reached on the panel?

Dr. **Goldenring**. I would agree.

Does anyone disagree with that?

I think that we have all said that in one way no matter how we might differ and I have heard many members of the committee saying the same thing.

Dr. **Lifton**. It interacts with all other issues is what we are saying but that it is a special new threat.

Mr. **Elkind.** I would like to just say that I am a little discouraged about new curricula of any kind being used technically and having less impact. I would rather that if we could get parents, as has been suggested, to talk and to deal with these issues with their young people. Every time we try to introduce these things in the schools and curriculums it gets so distorted and so disrupted it has not been worth it. [Applause.]

Dr. **Goldenring.** What has been shown though in the experience of family life education, I would like to come back with a parallel there, is that I have to agree with Dr. Elkind that the best such programs are designed at a community level by a dialog among community leaders such that all sides are represented within the needs and the context of the community. This has been shown particularly in California in the experience of San Bernardino County which has had a very fine family life education program that was put together by all religious groups and all leaders of the community in order to present all possible views. It is a very good program and they have, for example, had the teenage pregnancy rate go down in San Bernardino County directly, we believe, as a result of this good program which was put together at the community level.

I do not advocate that communities not be involved. Furthermore, in all good family life education programs, and death and dying programs that I am aware of, parents are specifically involved in the homework section of the program. Thus the children and adolescents are instructed to go home and talk to their parents about this and check out values with them. Then they come back and discuss again in the classroom. This is precisely the most important thing.

Mr. **Morrison.** If I might just follow on this line for a moment, what research or information is there at this point on the affect of the kinds of education that people get as children on their ability as adults, as parents, to be able to participate more effectively with their children in confronting what we might call controversial or difficult issues, whether nuclear war or sexuality or death and dying or whatever? Do we know anything about that?

Dr. **Goldenring.** Yes. I think we know, for example, that there is a new branch of teaching and learning that we all have to become more involved in called conflict resolution. It is a subset of psychology which deals with how people communicate with each other and how they resolve crises. This is something we need to start teaching our children because it is not an inherent skill in human beings to know how to properly resolve their differences, as members of this committee undoubtedly know. That is something that we now have some science about and that we could teach in schools. Children could sit down with each other and learn the appropriate peaceful ways to solve disputes and communicate with each other. We know how to do that now but we are not doing it.

Chairman **Miller.** This is a very weak gavel that I have here. Dr. Mack, quickly respond to Congressman Morrison.

Dr. **Mack.** Just very quickly, in my own home community there is a curriculum on which high school and junior high school kids do learn about the nuclear issue in particular. Some details and facts are presented and they say, yes, this is disturbing but we are glad that we have had this information because now we can talk about it, we can take part in the society, we can become more active as citizens.

I wanted to take just another moment.

Chairman MILLER. Ten seconds.

Dr. MACK. All right. I will just take another moment to say I want to dispel the notion that somehow this concern is caused by the fact that people are stirring up kids to be afraid. There is data coming in, for example, from other countries. In Finland the No. 1 fear of young people is this fear of war. Even the Soviet Union where information can be controlled, the preliminary data we are getting is showing that young people there are as concerned and frightened about this issue as we are in this country. So it is appearing to be a worldwide kind of concern now and we are trying to get data from all over the world.

Chairman MILLER. Mr. Levin.

Mr. LEVIN. Thank you very much, Mr. Chairman.

Let me respond briefly to my colleague Mr. Marriott, who asked "Are we the culprits, are we the wrong role models?" My guess is that if we asked President Reagan to do just one thing before the end of his term, whenever that is, in the end he would say, "End the threat of nuclear war on Earth." I think I have heard him say that and if that is true, I wonder what it means to ask, "Are we the culprits?" When we raise this issue, one that would be near the top or at the top of his agenda.

Let me just, if I might, ask some questions because I think Mr. McKernan's question and Mr. Morrison's question about information in its relationship to fear, is a very good one. In Mr. Marriott's original statement there was a reference to divorce, child abuse, drug abuse, and I would hope that these would be items of intimate concern of this select committee. I think they are, yet there is no effort to elevate our hearing today as the most important hearing. It is simply one of a number of hearings on vital issues.

I assumed that we were trying to give information to children and youth about the implications of divorce and child abuse, of drug abuse, of pornography, and I wonder if you might comment on the interplay between giving information and conjuring up fear. People who are psychiatrists, psychologists, pediatricians, I assume, work with the dynamics of the relationship between information and fear all the time and it would help us, I think, if you could give us your thoughts on that interplay.

Mr. ELKIND. I could start. An illustration from television might be one that is useful. There is a lot of concern about the total that it is not so much aggression as fear as primarily adults are losing control and the fear that they themselves might lose control. It is very frightening for kids to see adults who are losing control and out of control so that is the kind of information that they see. When they see adults out of control they get very much afraid that other adults might be out of control and they themselves might be out of control.

So sometimes what seems to be the critical thing—that is, the violence—may not be the critical one. What they are really seeing is something more subjective and something that more pertains to them so they get fears that might not be evident on the surface from what they see.

Dr. **Goldenring**. Let me also comment that the context of information is important to response. If I take an audience of teenagers, for example, and show them a very graphic film of the effects of the Hiroshima bomb and I just walk in and show the film and walk out, I can assure you that the context of that will be very fearful and that is not what we are talking about. What we are talking about is information given in such a context that the teenager can process it, evaluate it and share with others in a dialog. Hopefully they will then begin to come to some resolution as to where they are in their beliefs and actions.

When we just give people information—if I give teenager information on just about anything out of context, give him a pamphlet—this has been shown time and time again—it doesn't work. They don't read the pamphlet or they look at the pamphlet, and read it, and forget it. It is the context that is important and it has to be in the context of discussion and sharing not only with teachers and colleagues and fellow students but also with parents so that adolescents can develop a resolution to their concerns.

You can take any issue you want, and this is true. So for just information, I cannot tell you whether it is going to cause fear or not. I need to know the context in which it is expressed.

Dr. **Lifton**. I would speak to that, too, really in a similar vein and suggest a kind of model. I think it is a very sensitive question. The model would be something like this. If we take the examples of other fearful situations for young people as you suggested, whether it has to do with simply growing up with one's own sexuality or problems of drugs or the overall problem of death that seems always to be with us, there has been a lot of experience, a lot of clinical experience and research experience and I think it could be summarized something like this.

Accurate information, even painful information, can be and is helpful if balanced by an avenue of possibility and hope. That means you can learn and will benefit from learning very difficult things about sexual hangups, about drug possibilities, and about death. That information, however difficult in its nature, deepens one's capacity for mastery if it is combined with avenues of possibilities and some transmission where possible of adult experience and adult wisdom.

I have seen that same model operate constructively with nuclear weapons information. If I talk to young people—now I am talking about young people in their teens from 14 to 18—and they have had some systematic exposure to nuclear weapons questions where they have looked at some of these things, including the terrible things that the weapons do and the various thoughts of about what to do about our impasse, they can be more posed, they can talk about it. They don't have a complete sense of mastery but that very important issue, a sense of mastery, is at least partial in developing for them.

That holds even more strongly as they get older and move into universities where there are many courses now about nuclear weapons. But in the Beardslee-Mack work there is expressed a hunger for information about these issues because the fear is there, there is some knowledge there. Again going back to that model, if you don't give reliable and accurate information, one is then left with one's unmitigated fears so I hold to that kind of model as constructive.

Mr. ELKIND. May I just add a developmental dimension to that model that it is important that the information be at the level that children can understand. Certainly, for example, we see the children who lose a parent at 5, don't mourn that parent until adolescence because the information, although it is there, cannot be processed. I see a lot of kids who have been hurried now in kind of mourning for a lost childhood so that the kind of information that kids can deal with or even religious kinds of things which are misinterpreted, the kid from Connecticut who said, "Our father out in the kingdom, Carl be thy name."

So it is that kind of misinterpretation if the material comes at a time when kids can't process it. If the information is at a level that children can use and assimilate, then it is very useful but if it is beyond what they can process, then it is not useful.

The other point is that processing takes different times at different age levels. Young kids may experience something 1 day and not talk about it for 3 weeks. It takes time for them to assimilate that kind of information; it might be a fearful thing, it might be a happy thing. So the two dimensions in addition to the model I would think is an elemental dimension and a time dimension, how much time it takes kids to process that information. You can take a kid to the circus and they won't talk about it for 3 weeks and all of a sudden they talk about it. It takes them that much time to get that information through. And the same thing happens with fears. They can see something very fearful and they say, oh, gee, it didn't affect them a moment. Three weeks later they are having nightmares so I think those two dimensions.

Dr. LIFTON. I agree with that and I am glad to come to this consensus, both on the panel and perhaps among the committee people as well but I would add one more statement here, a very important one. The experience has been clinically and in research that where information has not been forthcoming it has not been about sexuality, drugs, death, it has not been out of an adult wisdom and sensitivity to children's needs and vulnerability; it has been about adult repression and numbing toward these issues. That is a very important matter.

In most of these really delicate and painful issues it has been the adults who have been unready and who have held back and who have been frightened and in this sense we owe it to our children to struggle through our own fears, not to deny them, because we are all vulnerable, but to struggle through them and even share them with children and in that way we all become just that much stronger.

Chairman MILLER. Dr. Lifton, I know you have an appointment at 12:30. If you would like, we would be happy to excuse you so you can go make that appointment.

I recognize Congressman Lehman.

Mr. LEHMAN. Thank you, Mr. Chairman.

My concern is not that the children are terrified of nuclear annihilation but they are not terrified enough. I taught the 11th grade in 1962 during the Cuban missile crisis and I used to make my students do a 5-minute essay on anything they wanted at the beginning of each class. At least as far as the boys were concerned, I would have them write about what their problems were and No. 1 was availability of automobiles, No. 2 was competitive sports, No. 3 was hobbies, No. 4 was girls.

I think that youth today are mostly concerned with basic immediate gratification and what is going to happen this coming weekend or tonight. I think that this is compounded in a sense by my own State of Florida which mandates that each high school student have a 6-weeks course in Americanism versus communism before they graduate. Nothing is mandated about teaching the terrors of a nuclear war. If we survive long enough for the present children to become adults, maybe if they can remain terrified enough in this country and in Russia and in Finland or wherever you are talking about—just maybe those terrified children will become terrified adults who can resolve the nuclear armaments race that we adults today have refused to face.

Chairman **Miller**. Mrs. Boggs.

Is there a response to Mr. Lehman?

Mr. **Lehman**. Anybody want to say anything?

Dr. **Lifton**. Amen.

Dr. **Goldenring**. I hope you're right.

Chairman **Miller**. Congresswoman Boggs.

Mrs. **Boggs**. Thank you, Mr. Chairman.

Thank all the members of the panel.

I regret that I was unable to be here for the entire period today. I was testifying before another committee and I had to miss some of this so perhaps this has already been explained.

Dr. Goldenring, I was interested in your test that you are running in Russia. Under whose auspices are they being conducted and how do you expect to be able to gather the information you are seeking?

Dr. **Goldenring**. The answer is I am not quite sure. It is very difficult to gather information in the Soviet Union, as you can imagine. What we have done is that a lady who works in San Francisco who has worked with some associates of mine is able to get a good Russian translation, which by the way I will have checked because I want to be sure that it is appropriate, has taken the questionnaire over to the Soviet Union and I have told her the kinds of teens I would want to survey and the kinds of classrooms I would like to get the study done in. I want to find out what she comes back with because I really don't know if the Soviets will allow it to be done.

To be quite frank, there has been difficulty in obtaining American samples at times because again it is very difficult to get people to really look squarely at this issue and to permit good surveying. Everybody says, well, gee, it is going to scare the kids. In fact, the data shows that a lot of them are already scared.

So I cannot completely answer your question, I cannot yet. When we do get the data back, it will be evaluated to see that it is an appropriate comparison group for age and intelligence and so forth. We just have to do the best we can in the Soviet Union because it is a different society and I cannot guarantee my samples.

Dr. **Mack**. May I comment on that?

Mrs. **Boggs**. Yes.

Dr. **Mack**. That illustrates a number of things we are talking about today. As a result of the trusting relationship between an American physician and a Soviet physician who is high up in the Soviet system, we three psychiatrists—Dr. Chivian, Dr. Waletzky and myself—were invited to the Soviet Union to interview Soviet children ages 10 to 15 in two summer camps. This data is very preliminary, I am just going to mention it because you asked this question.

We had our own translator. The tapes belonged to the American group and the Soviets made no copies of the tapes and they are being analyzed now. We brought them back here. We had access to the kids in the camp to pick and choose. The kids were not prepared in advance. We were struck in the 50 interviews that were conducted first by how much detailed information about nuclear weapons and what they do that the Soviet children had, which we had not expected because we had been told that the Soviets protect their kids from that.

Also, we were struck by the fact that none of them believed there would be survival if there were a nuclear war. We had been told they have a very extensive civil defense program and we found the civil defense program is not told to the society as something that can protect it. None of them believed they would survive.

In questionnaire studies which we are analyzing now, in a group of 290 Russian kids age 10 to 15 the nuclear fear appeared to be the top fear among the concerns there. One of the top, if not the top, concern of Russian kids—and this is very preliminary work, much more work is needed, but I think what we are finding is that there is a kind of worldwide culture or climate of fear which does not seem to be particularly related to what the peculiarities of the media and of the educational systems are. They are exposed to some factual information. Their key source of information is also television, although they also have discussions in schools and they do seem to talk within their families about the issue.

Mrs. **Boggs**. I am very, very interested that you are reaching out, of course, to the Soviet children because there is nothing we can really console our children with unless Russian children are equally consoled by Russian parents. There is no way of removing the fear of nuclear war unless the Russians help to remove it.

I am sorry that Dr. Lifton has left but I think our doubts would probably fit into your feelings as well. I was interested that he had been able to interview some Cambodian children. I wondered if this had been done in Kampuchea with the few remaining children who were there or if it had been done in refugee camps in Thailand and elsewhere. I think that what you have been bringing out is the need for children to have an authority figure within their own families. Family members are indeed often trying to do something about a problem that seems too big for survival.

This was illustrated very strongly in a little children's home in Kampuchea where some of the Congressmen and other Congresswomen and I visited. The teenagers in the home were so very concerned with the tiny children. There were literally a handful of children under 3 years of age because the smallest children do not survive, of course. The sense of responsibility that the teenagers have for these small children was absolutely remarkable. Somehow they transmitted with their love and their concern and their interest by singing to them of the traditional lullabys, by teaching them the traditional little dances and so on, that somehow the culture and all of the aspects of the human spirit could indeed overcome the loss of life and the loss of security and the horrors to which these children have been exposed.

So I wonder what the difference was in the findings. I will ask Dr. Lifton, in writing, about the young people who had experienced nuclear blasts and the children who had experienced the devastation of a so-called regular war.

Thank all of you for being so helpful to us. I have some other questions in writing. I regret that I was not here.

Chairman MILLER. Congressman Sikorski.

Mr. SIKORSKI. Thank you, Mr. Chairman.

Chairman MILLER. We are running out of time. I am sorry to do this to you but there is another committee scheduled in here very quickly.

Mr. PATTERSON. I think you did the wise thing by standing firm and holding these hearings, Mr. Chairman. I want to commend you and all of our panelists for very expert testimony. It was excellent and very informative.

As adults, I think many of us repress or keep our children from knowing the truth about things. I believe we do this to protect them, but in spite of our efforts, I believe children can sort through things on their own. This morning I believe we have heard testimony which illustrates this point.

In this morning's newspaper, there is a cartoon which very well depicts the priorities of individuals at any given time. It shows two men talking against the backdrop of the problem in Lebanan and the Korean Air Lines situations, one asks the other, "What ever happened to Central America?" Well, of course, the answer is: Central America is still there. It is just not on people's minds because the focus of the media and our attention to other trouble spots has shifted our thoughts and concerns to other areas.

Nuclear death is a real concern which does not go away. It coexists with our concerns about family life, education, employment, income security and other important issues.

I don't believe we can hide this fact from our children. No indoctrination or one-sided information channel from adults to children will prevent children from knowing the truth about the constant threat and real danger of nulcear war. Those of us over 50 were in a sense indoctrinated by a movement called "Atoms for Peace." Many here surely remember it. We were all going to solve our world problems through peaceful atoms.

Perhaps if we had a balance on the other side of the issue, recognizing that nuclear war can indeed be harmful, perhaps in a generation or so, with children learning both sides of the issue, we will develop the leadership to eliminate the nuclear threat. I certainly hope so.

Thank you, Mr. Chairman.

Chairman MILLER. Thank you. Again I want to thank you and the panel for your time and your effort and I would hope that you would continue to make an effort as other data is developed from your other studies to make that available to the committee. I think it is very important that we have new relevant evidence and suggestions made to us.

An earlier request was made by Congressman Bliley about the inclusion of some material. I would suggest that the speeches and material would probably be included in the record without objection. The comic book, I am doubtful of, but it will certainly remain a part of the permanent files since it was referred to in the hearing. Whether we have an obligation to print it again or not, I don't know.

Mr. **MARRIOTT**. Thank you very much.

Chairman **MILLER**. The meeting stands adjourned.

[Whereupon, at 12:45 p.m. the hearing adjourned.]

### PREPARED STATEMENT OF RABIN CHANDRAN, AMHERST, MASS.

Ever since I was in elementary school I have known about nuclear weapons. Until just a couple of years ago I didn't think about them much. They were, to me, just very, very powerful weapons that would never be used, because the leaders of the world were too smart and careful to ever risk a nuclear war. Today I know this isn't true, and I am concerned and afraid.

My name is Rabin Chandran and I am 16 years old. I live in Amherst, Massachusetts, and I am a junior in high school. I an very interested in my school work and I am especially interested in politics, law and science. I enjoy playing on the junior varsity soccer team. I am currently a member of our high school's chess team and theater club. I am also active in the Boy Scouts. This year I am on the student council. Last year I was on the debate team.

I first became very concerned about the possibility of a nuclear war in the beginning of the 1982–83 school year. This was during what was called a Week of Dialogue. The week of dialogue was a week at our school where we had debates, movies, speakers, and discussion about the issue of a nuclear war. This was the first time I was really aware of how close the world is to a nuclear holocaust.

After that I joined a group called S.T.O.P. (Student Teacher Organization to Prevent) Nuclear War. This group's sole purpose is to reduce the risk of a nuclear war. Presently, I am on S.T.O.P.'s national board of directors.

The issue of a nuclear war has had a drastic effect on my life. A tremendous amount of my time and energy has been channeled into S.T.O.P. I hope that you congress people who read this have the sense to do something quick to make this world a safer place.

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### OPENING STATEMENT OF HON. BARBARA VUCANOVICH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEVADA

Mr. Chairman, thank you for the opportunity to speak here today.

I share the sentiments which have been expressed by some of my colleagues on the minority side of this Committee—that the purpose of this hearing is misdirected and is not consistent with the general goals of the Select Committee.

I can think of a number of fears—divorce, physical abuse, educational needs—which the children of my state (Nevada) are more directly concerned about and which I believe to more appropriate subject matter for the Committee's attention.

After looking at the testimony of some of the witnesses, I wonder if the Committee isn't in fact creating otherwise remote or non-existent fears in the adolescents here today as a biproduct of the testimony and questioning, and to others around the country from the inevitable public exposure produced by Congressional hearings.

Putting these concerns aside, I welcome the witnesses who have come here to testify and I hope that this will develop into a productive and positive hearing. Thank you.

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### OPENING REMARKS OF HON. DAN MARRIOTT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH

Mr. Chairman, as you know, the Minority Members of this Committee have expressed their objections to this hearing in the strongest possible terms. On two separate occasions we have written you expressing our concerns and asking that you reconsider holding this hearing that is now underway.

We are not unmindful of the fact that many schools are teaching children to play war games. We are not unaware of the fact that some adults are using children as political pawns to express their own concerns about the possibilities of a nuclear holocost.

The Minority's oppositions to this hearing is not based on a lack of concern for war. We are all opposed to war, whether it is carried out with nuclear weapons resulting in megadeaths, or carried out with more conventional weapons.

None of us wants war. We all live with the knowledge of the inevitible death and destruction that comes with armed conflict.

The question is not whether we or our children are concerned about the possibilities of war. The question is how best to avoid such a catastrophy. Questions concerning our relationships with foreign countries are not a proper function of this Committee. This hearing, while not directly concerned with foreign affairs, comes at a time when international tensions have been escalating. For this Committee to focus national attention on the children's fears of war only serves to increase whatever concerns they may already have.

Unfortunately, valid and responsibile research data about the extent to which fears of war impact on the psychological development of children is not presently available.

The lack of good research data in this area has been eloquently expressed by Professor M. Brewster Smith from the University of California at Santa Cruz. In his address to a symposium sponsored by the Eugene, Oregon Chapter of Physicians for Social Responsibility on October 9, 1982, he said:

"* * * the first discovery I made when I tried to come to grips with (the psychological problems of children as a result of the threat of nuclear war) is how very limited and weak the available data are * * * There has been very little research on the impact of the nuclear age on children and youth, (and) the quality of the data are so poor that the only reason for citing the existing studies is that there are no others." (Photocopy of text, p. 4).

Elsewhere in his statement Professor Smith continues by saying:

"* * * we need more and better data, and even with very *good* data, the causal interpretation of historical trends in this area will be difficult and inherently speculative." (Ibid, p.5).

The opinion of Professor Smith is shared by any number of his colleagues Dr. Joseph Adelson, who has been the Associate Editor of the "Journal of Youth and Adolescence" since 1970- (over 13 years), Editor of "Political Psychology" in 1979-80, and a Consulting Editor of the "Journal of Personality and Social Psychology" for over 6 years, tells me:

Reviewing the literature and major texts in developmental child psychology and adolescent psychiatry, there is no mention of the fear of war or the fear of nuclear war as important in the development of children or as a source of psychiatric disturbance. To the contrary, the most recent study of children's ideas of death indicate that ideas of war and bombing are trivial as compared with other fears that children have (Telephone conversation with Dr. Adelson, September 15, 1983).

Unfortunately, Dr. Adelson was not available to present this testimony personally because of conflicts in his schedule. And, Dr. Robert Hogan, Professor of Psychology at the University of Tulsa, former Professor of Psychology at the Johns Hopkins University, and author of a book titled, "Personality Theory: The Personological Tradition," who shares Dr. Adelson's view is not able to be present because of travel restrictions being experienced at his university. However, both of these respected researchers in the area of child and adolescent development have indicated they will submit written testimony for benefit of the record.

In addition to the obvious lack of reliable research data on the topic under consideration here today, we objected to this hearing because we are unanimously agreed that the limited resources of this Committee could be more prudently used.

In our letter of September 13, 1983 which all Members of the Committee received, we listed 15 different subjects we believe to be more germane to this Committee. I will not recite each of these topics, but I will note a few.

First, we believe the limited resources of the Committee could be more prudently used by looking into the consequences of divorce on children and youth. The trauma of divorce is not unknown to a great many children. Unlike the possibilities of a nuclear war, divorce is very real to them. It is not abstract and it is not a game. It does not require them to speculate about the consequences.

If we are concerned about the psychological fears of children we should concentrate on their primary fears which, according to reliable research, is the fear of loss of a family member by divorce, separation, or other causes.

Second, we are agreed that the limited resources of the Committee could be better used by looking into the social, psychological, and economic consequences of abuse, neglect and sexual exploitation of children.

Not only is this topic more germane to the concerns of the Committee but the problem effects the lives of at least 650,000 children annually. Based on research carried out by the Westat Corporation in 1981-82 we know that at least 650,000 children are injured or impaired each year. By comparison, this means that the number of abused, neglected and sexually exploited children is 100 times greater than the number of children involved in the last polio epidemic in this country in the late 1950's.

We have also learned from the National Cerebral Palsy Association that the second leading cause of C.P. is child abuse. Only automobile accidents and other accidental injury outranks child abuse as the leading cause of preventable neurological damage to children that cannot be repaired even by the most skilled neurological surgeons.

When this Committee was authorized by our colleagues in the House we were all hopeful that as a study committee we could approach the problems of children, youth and families in a bipartisan manner and dig out facts that would provide a basis for establishing public policy. I am convinced that the rank and file membership of the 169 national associations that endorse the proposal to create the Select Committee on Children, Youth and Families would not endorse the use of elementary and secondary children to further any particular persuasion. Mr. Chairman, in order to provide a complete and full account of these proceedings I am submitting for the record our letter to you under the date of September 13, 1983.

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# Adolescents and the Threat of Nuclear War: The Evolution of a Perspective

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The authors briefly review recent work in the area of the impact of the threat of nuclear war on children and adolescents. They explore some of the difficulties inherent in understanding the possible effects of the threat of nuclear war on children based on their research experience in the area.

## INTRODUCTION AND INITIAL STUDY

In 1977, Drs. Beardslee and Mack were asked to join the American Psychiatric Association Task Force on the Psychosocial Impacts of Nuclear Developments. As both are child psychiatrists, they were given responsibility for describing possible effects of the threat of nuclear war and the presence of nearby nuclear power plants on children and adolescents. An initial survey of the literature revealed that, although there has been considerable work from the perspective of adults [1-6], only two studies had addressed the impact of the threat of nuclear war on children. These studies, one by Sibylle Escalona [7] and another by Milton Schwebel [8], were done in the early 1960s soon after the 1961 Berlin and 1962 Cuban missile crises.

The studies differed from one another in methodology yet arrived at the same conclusion. The Escalona sample included 310 children, while the Schwebel sample was over 3,000. The Escalona study was less systematic, as the same questions for the children were not employed by different members of the study group, while the same four questions were used in the Schwebel study. Both concluded that children and adolescents were deeply worried about the possibility of nuclear war. In the Escalona study, when asked how they would like the world to be different, over two-thirds of the children spontaneously expressed wishes for world peace and concern about war and peace. In response to direct questions, in the Schwebel study 44 percent of the students reported expecting war and 95 percent expressed concern about the danger of war, some of them intensely. Surprisingly, no studies could be located that had been conducted in the ensuing 16 years on children's experience and attitudes toward the nuclear threat.

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Given the lack of recent studies, the authors, with the other members[1] of the APA Task Force, developed a questionnaire to assess the attitudes of children and adolescents toward nuclear war, nuclear weapons, and nuclear power plants. In the following review, we discuss mainly findings from studies about the impact of the threat of nuclear war. Recent work has appeared on other related topics, including adults' accounts of the impact of nuclear war during their childhood [9], the attitudes of young people toward nuclear power plants [10], and the Three Mile Island accident [11]. Table 1 presents the questions asked in the initial survey.

Three samples totaling 1,143 students from public and private high schools in three cities across the country were studied with this questionnaire. The three samples were collected in 1978, 1979, and 1980. Most of those studied were adolescents and all were in school when questioned. The initial 1978 questionnaire elicited open-ended essay responses while the subsequent two questionnaires had a quantitative format.

The work [12] demonstrated that many young people were concerned about the threat of nuclear war. The individual answers of a number of the students, especially from two high schools in the Boston area in 1978, were striking and best express the depth of concern of the students. As an example, in response to the question "What does the word nuclear bring to mind?", some students said:

"Big grey clouds, pipes and smokestacks, red warning lights, dead wildlife and humans, unnecessary death and violence."

"Danger, death, sadness, corruption, explosion, cancer, children, waste, bombs, pollution, terrible devaluation of human life . . ."

"Stars, planets, space, darkness . . ."

"All that comes to mind is the world's final demise, final kind of holocaust."

In response to the question, "How old were you when you first became aware of nuclear advances, discuss what you thought then and now," some responses were:

"When I was about eight I watched the news broadcast on the anniversary of Hiroshima showing the bombing and devastation. Always through grade school we would be shown where the bomb shelter was just in case. Then I was less informed

TABLE 1
Initial Task Force Survey Questions

1. What does the word "nuclear" bring to mind?
2. Have you participated in any activity related to nuclear technology?
3. How old were you when you were first aware of nuclear advances? Discuss what you thought then and now.
4. What are the benefits and dangers of nuclear power plants in your area? How do you feel about nuclear power?
5. How important do you feel nuclear weapons are for our national security?
6. What do you think about civil defense? (Bomb shelters, sandbagging industries, evacuation plans?)
7. Do you think that you could survive a nuclear attack? Your city? Your country?
8. If a neighboring city was being held and blackmailed by a terrorist group with a powerful thermonuclear weapon, how would you feel?
9. Have thermonuclear advances influenced your plans for marriage, having children, or planning for the future?
10. Have thermonuclear advances affected your way of thinking? (About the future, your view of the world, time?)

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[1] Other members of the Task Force were Dr. Rita R. Rogers, Dr. Jerome Frank, Dr. Doyle [illegible]. Carlson, and Dr. Michael Mufson.

and thought less on the subject, but as I learned more and more I became more and more negative towards the whole thing."

"I believe I was in junior high when I first became aware. Of course I found it terrifying that every human being in my whole world be destroyed by one bomb that our nation had first discovered. The bomb that every advanced civilization has sought to obtain. To destroy our race, to destroy people, culture, life on the earth, is essentially the outcome of the A bomb."

In response to the question, "Do you think that you could survive a nuclear attack, your city, the country?", students reported:

"I don't really think we could and even if we did the side effects from it would awful. Remember there are still people suffering today from the effects of Hiroshima . . ."

"I personally would not care to survive a nuclear attack. The horrible effects of the radiation and the death of people important to me would be too great a thing to bear . . ."

"I think about that often. I don't really think they could survive one since I'm so close to a big city. It hasn't happened yet; let's hope and pray it doesn't."

In response to the question "Have thermonuclear advances affected your way of thinking?" some answers were:

"I think that unless we do something about nuclear weapons, the world and the human race may not have much time left."

"Yes they have. I feel that the future will be very different than the present because of nuclear advances. If nuclear energy is used right the future can be advanced technologically for the benefit of all mankind. If nuclear energy is abused and used to make weapons as is happening now the future of the world could be very dark . . ."

"In a way it has. It has shown me how stupid some adults can be. If they know it could easily kill them I have no idea why they support it. Once in a while it makes me start to think that the end of my life, my time in life, may not be as far off as I would like it to be, or want."

These responses have to be seen in relation to the time when the questionnaires were given. In 1978 it was not known whether or not children or adolescents were troubled and the eloquence and power of their responses was something of a surprise.

Quantitative analysis revealed that there was no uniformity of political opinion among these young people, and indeed very few had taken an active position on the issue. Most became aware of the nuclear threat through the media or school classes rather than conversations with parents or friends. Many (about 40 percent across the three samples) had become aware of it by the time they were 12. The responses to questions about the effect of the nuclear threat on thinking about the future, on civil defense, and on survival reflected a profound dis-ease and uncertainty about the future and a considerable amount of general pessimism. For example, in the 1980 sample, when the question was asked, "Will there be a nuclear war?" the majority of respondents thought that it was possible, and a substantial minority thought it likely.

The majority were concerned about at least some aspect of the threat of nuclear war and a number were very afraid. The respondents were relatively alone with their fears and not certain about what to do. Escalona [7] had previously raised the question of the possible impact of the nuclear threat on personality development. We also have this concern. Questions about the continuity of existence, and doubt about whether there will be a future, as expressed in these questionnaires, might make some adolescents disillusioned and highly present-oriented rather than being willing to accept delay of gratification and to plan for the future. Furthermore, uncertainty about the future might well interfere with the formation of a stable ego ideal [12].

## CRITIQUE OF THE TASK FORCE REPORT

The Task Force study represented an initial exploration to see whether there were significant concerns among children and adolescents about the threat of nuclear war as well as the hazards, real or imagined, of nuclear power. The sampling was not systematic, although a range of ages, geographic areas, and public and private school sectors were represented. The questionnaire format did not allow definite answers to many of the questions to which one would want to have answers, such as the relative importance of this issue for young people in comparison with other social and technological problems, or the variation in thinking among young people from different regions of the country. We could only speculate about the meaning of the worry these young people expressed or the impact of the threat on their current functioning or future development.

## FURTHER STUDIES

Since 1977, there has been a significant increase in public debate about the nuclear issue, and in media attention to children's fears. In 1979 the accident at the Three Mile Island nuclear reactor brought home to many Americans the risks inherent in nuclear power. Moreover, policy decisions and statements by government officials which seemed to accept the possibility of nuclear war with relative complacency have led to an increase in public debate and concern about the threat of nuclear war. Many citizens both individually and in groups have become involved in the arms-control issue.

There has been increasing concern from educators and parents about the possible effects of the threat of nuclear war on children, as well as increasing attention in the media. The formation of such groups as Educators for Social Responsibility, the development of curricula and programs in response to the felt need to educate high school and junior high school students about the nuclear threat [13], and the development of children's groups opposed to nuclear war are examples of this concern. Some additional research has been conducted, although much more is needed.

### *Non-Systematic Opinion Surveys*

*Day of Dialogue* In 1982 Educators for Social Responsibility [14] sponsored a day-long symposium on nuclear issues called "Day of Dialogue." Thousands of questionnaires containing questions similar to those in our initial study were distributed to high school students across the country. The results of 2,000 randomly selected responses were examined from among a larger number collected in Massachusetts, Wisconsin, Oregon, and California. Eighty-seven percent of those responding thought that there would be a nuclear war in the next 20 years and 90 percent of these reported that if such a war occurred, the world would not survive. Eighty-one percent said that the threat of nuclear war affected their hopes for the future, while 34 percent said it was having an impact on having a family or planning to get married.

*Newton North High School* A modified version of the Task Force questionnaire was used by Jon Klavens, a senior at Newton North High School in Newton, Massachusetts, in April 1982 [15]. He surveyed students' attitudes some weeks after a one-day session of lectures on the topic of the nuclear threat. The questionnaire was distributed on a specified day to students in English classes by their teachers. Of the 2,500 students enrolled, 950 questionnaires were returned. All of the students responding were in attendance on that day, although, of course, not all students were enrolled in English classes.

In response to the question "Do you think that a nuclear war will occur during your lifetime?", 284 students (34 percent) indicated Yes, 114 (14 percent) No, and 429 (52 percent) were unsure. When asked about survival only 27 students (4 percent) thought their city could survive a nuclear attack, while 616 (77 percent) indicated No, and 152 (19 percent) were unsure. When asked if the threat of nuclear war was increasing, 559 (62 percent) thought it increasing, 152 (16 percent) thought it was diminishing, and 197 (22 percent) thought it about the same. The question, "Have nuclear advances affected your way of thinking about time, the future and marriage?" showed the largest impact was in the area of time: 40 percent said that it had great effect and another 20 percent some effect. Well over half felt that it had either great effect or some effect on their thinking about the future and about the world, while nuclear issues were reported to have the least impact on thinking about marriage and having children.

In response to an issue raised but not answered by our questionnaire, that is, how frequently students thought about the nuclear issue, 26 (3 percent) thought of it all the time, 67 (8 percent) very often, 263 (33 percent) often, 385 (48 percent) not very often, 56 (7 percent) never.

*Systematic Sampling* The best evidence about the importance of this issue from a study using rigorous sampling techniques is contained in the work of Dr. Jerald Bachman. He has generated findings in relation to the threat of nuclear war as a part of a study of adolescent attitudes toward the military and the draft [16].

Recently Bachman presented findings from surveys of students in seven consecutive graduating classes – 1976–1982. Each survey was conducted during the spring. A three-stage probability sampling approach was employed and through this approximately 130 public and private high schools from 48 states were selected. Between 77 percent and 85 percent of all the students in the appropriate classes were studied and the total-by-year sample size ranged from 16,662 to 18,924. The major thrust of this work has been to define adolescents' attitudes toward the military. A series of questions were asked about the area of "monitoring the future." One question asked was "Of all the problems facing the nation today, how often do you worry about each of the following?" The first possible choice was chance of nuclear war. There has been a steady rise in the percentage of those who worried about the nuclear threat. In 1976, 19.9 percent of male seniors never worried about it, while in 1982, only 4.6 percent of the males never worried. Similarly, in 1976 7.2 percent of the male seniors said they worried about it often, while in 1982 31.2 percent did. Female high school seniors showed a similar dramatic change over the seven-year period. Another question in the series was "Nuclear or biological annihilation will probably be the fate of all mankind within my lifetime." There was a steadily increasing trend for both boys (from 23.1 percent to 35.3 percent over the seven-year interval) and girls (from 20.2 percent to 36.0 percent) to agree or mostly agree with this statement.

Dr. Scott Haas [17] studied high school students from four parochial, private, and public schools in the Hartford, Connecticut, area and Deerfield, Massachusetts. The geographic areas were chosen because they were relatively free from intense antinuclear activity. One hundred questionnaires were given out at history classes. The students were informed that they were participating in "a study about the future." Sixty questionnaires were chosen from the larger group of one hundred returned with an even distribution of males and females and number of participants from the three different kinds of schools. A broad range of socioeconomic classes were included. The questionnaires contained twelve questions: the first seven were general and the last five, separated from the main body of questions, dealt with areas concerning the nuclear issue. In the final question students were asked to rank order the following concerns—economy, employment, energy, marriage, and nuclear conflict. Nuclear conflict was rated highest 24 times out of 58, more than for any other single category but certainly not a majority. Analysis of the questionnaire as a whole revealed that there was considerable faith in technology as a part of the solution to current problems. Denial was evident to Haas and a co-rater in many answers, particularly a general disbelief that people could consider rationally the use of nuclear weapons. Furthermore, Haas noted that the youngsters had an inability to conceptualize through language the reality of the threat posed by nuclear weapons. Only 12 out of the sixty respondents did not mention the nuclear threat at all in the first seven questions, but the general mood reflected greater concern with other issues such as technology, economy, and employment.

*Interview Study*

Lisa Goodman [18], working in collaboration with Drs. Mack and Beardslee and Roberta Snow, conducted an in-depth interview of adolescents in the Boston metropolitan area.

Teachers, parents, and counselors helped Ms. Goodman locate high school students during July and August of 1982. Seventeen girls and 14 boys ranging in age from 14 to 19 were interviewed. They represented a wide range of religious and socioeconomic backgrounds. Ten had taken a course or section of a course on nuclear weapons and/or the history of the arms race. The others had rarely, if ever, been exposed to such material in school. All interviewees were asked the same questions, and the interview lasted between three-quarters of an hour to an hour and a half.

The stated aim of the interviews was to elicit the perceptions and responses of these teenagers to the threat of nuclear war and to try to determine in greater depth than is possible through surveys how these young people were dealing with the threat. A second aim was to learn the political attitudes and ideas of these adolescents about possible solutions to the nuclear deadlock. The interviews were transcribed and analyses for common themes were separately conducted by Goodman and Mack.

Reading the transcripts of these interviews makes more immediate and real the fears young people express about the threat of nuclear war. Although some students reported trying not to dwell on it, while others claim they worry about it constantly, all of the 31 adolescents asserted that the existence of nuclear weapons impinges on their lives on a daily basis. They report being reminded of the arms race when they read the papers or watch television and that there is a constant worry in the back of their minds. These teenagers say they are afraid every day that nuclear annihilation will come, if not right away, then in a relatively short time. Some have planned to move away from the cities because of the threat; a few have decided not to have children and they say that the threat of nuclear war has forced them to live more in the present. Young people report various ways of trying to shut out their thoughts about this matter. Some claim that the nuclear threat is responsible for their excessive use of drugs. A few cope with the arms race by refusing to lapse into helplessness and have chosen to take the course of political action.

As with all earlier samples most of these youngsters do not advocate unilateral disarmament and, given the current international political situation, feel that some nuclear weapons are necessary. However, a deep discouragement, a sense of things being out of control, pervades their perceptions of the arms race; they draw no sense of security or safety from the presence of the weapons. One student explained his helplessness this way:

> I don't have the power to control, to say whether to have bombs or not, I don't have the control to say whether we make nuclear weapons or not . . . I don't know what kind of thing would happen, but at any minute there goes the war. It scares me a lot, this kind of emptiness, this kind of hollowness, like being in a tunnel and having to fight and nothing is around you and you're clawing at everything trying to find something. That's the kind of feeling.

The students did not take an actively nationalistic point of view, claiming that the United States is right and Russia is wrong. In general responsibility for the arms race and the current impasse is nearly equally assigned to the two superpowers, who are seen as locked in a blind, selfish struggle. Similarly, there is much questioning of the leadership in this country and in Russia.

### *Critique of Subsequent Studies*

The Newton North study, the Day of Dialogue questionnaires, and the interview study cannot be seen as representative of students in high schools across the country. They do not control for the effect of geographic bias, as nuclear issues may be more prominently debated or be a greater matter of concern in some areas of the country than others. Furthermore, participation in either the Newton North or the Day of Dialogue surveys was voluntary and at least to some extent reflected the students' interest and/or concern about the nuclear problem. Although an effort was made to reach all teenagers from a variety of backgrounds and political experience in the interview study, there was also some self-selection based on interest in the subject. Since only 31 subjects were interviewed, the effect of sample selection may be quite large. Another possible source of bias is the fact that the queries in the Newton North, Day of Dialogue, and interview study, as well as the Task Force Study, all ask specifically about the threat of nuclear war, and/or nuclear power, to the exclusion of other topics. Thus it was quite clear to the respondents what the researchers were interested in learning. The subjects may have complied to please the investigators. Also, questions about other areas might have elicited a more hopeful view of some aspects of the future. On the other hand, some respondents have indicated concerns in this area that they would not have expressed if the nuclear issue had been imbedded in more general questions among several possibilities.

The Bachman study, the most systematic in its sampling approach, does give evidence on two important points. First, the absolute percentage of young people concerned about the nuclear threat has definitely increased since 1976. Second, a substantial minority of students (about 30 percent) did seem worried about the likelihood of nuclear annihilation. However, the majority did not. This study is free of the possible biases of the other studies. As it is far less detailed in its inquiries about areas of concern to investigators of the nuclear issue, such as planning for the future or the effect on current life style, no conclusions about these areas can be drawn from it at present. Further exploration of this valuable set of data is expected, which may shed light on the question. Haas's study concludes that a substantial minority in a carefully chosen sample are quite concerned, but also indicates that most students do not see it as their primary worry.

## NEED FOR FURTHER STUDIES

Our review suggests that the serious study of the impact of the threat of nuclear war on young people is only beginning. Work to date does indicate that this is a substantial area of concern for an as yet undetermined percentage of young people in this country and that the fraction of those concerned is increasing. With others [19], we think much further investigation is needed. More surveys of systematically chosen large samples using quantitative measures or indicators are required. These should focus not only on whether youngsters are worried or afraid but how concerned they are in comparison to other worries and what they see as the possible impact of the nuclear threat on their lives and daily functioning. Questions about the future unrelated to the nuclear threat should also be presented. Detailed studies are needed about how youngsters' attitudes about nuclear questions develop. Our initial questionnaires indicated that children and adolescents became concerned about this issue primarily through the media or school. As parents have become increasingly involved, however, and more young people are discussing these issues with them, the impact of parental attitudes on their children's experience of the nuclear threat has become a matter of greater interest. Both interview and questionnaire studies are needed.

*Review of the Authors' Experience: Complexities and Troubling Emotions* We believe a review of our own experience in trying to understand the possible impact on children and adolescents of the threat of nuclear war may prove useful to others working in this field. We have focused on two areas: the complex problem of trying to separate out the influence of this issue from other issues and the troubling feelings, the pain and sadness for those working on this problem.

### *Complexities*

No study has yet demonstrated actual diagnosable psychopathology as a direct result of the threat of nuclear war nor has even attempted to demonstrate it. In our experience, the fields of child psychiatry and child psychology lack models for understanding the impact of children's and adolescents' responses to domestic politics and threatening international realities. How fears, such as that of a nuclear war, may affect their immediate or long-term functioning or personality development simply remains not understood at present.

Some contemporary political and social events perhaps provide partial analogies. The effect on adults and their families of job loss is one example [20–23]. It is certainly related to disillusionment and a foreshortened sense of the future. From a different perspective it has become evident that sudden, traumatic experiences like the Chowchilla kidnapping do have significant long-term effects on otherwise healthy children [24]. Finally, there is conclusive evidence of the major impacts of a social and cultural phenomenon that has emerged in the last twenty-five years, namely television. Television has been shown to have significant effect on the attitudes and expectations of children, on how they view the world and on their behavior [25-28]. Certain selective programs have been shown to enhance learning [29] while exposure to repetitive television violence has definitely been shown to be harmful both to children and their families [30].

None of the above is of more than limited help in our effort to understand the impact of the threat of nuclear war. The effects of job loss are profound but job loss is an actual, concrete event in the child's and family's life, and it involves actual as well as imagined losses. As will become evident, we do think that there is an aspect of the reaction of adolescents in becoming aware of the nuclear threat that is like a sudden traumatic event but such an experience is certainly not the same as the actual trauma of kidnapping. The overall effect of television itself demonstrates that this change in the technology of the culture has had a powerful effect on children. However, television's influence as a whole is so broad that it is impossible to make any direct comparisons between its impact and that of the threat of nuclear war. Nonetheless, as television is surely a medium for exposure to news and information on the nuclear issue and as many youngsters become aware of the nuclear issue through television, the study of television in relation to this issue may well prove fruitful in the future.

### *Characteristics of the Issue*

The nuclear issue is immediate, rapidly changing, and has provoked a polarization of political viewpoints. This makes it difficult to obtain the necessary distance and objectivity to evaluate its effect fully and to understand adolescent concerns. There are distinct characteristics of this issue which set it apart from other social and political problems. The nature of the threat of nuclear war is at the same time both abstract, outside of the personal experience of adolescents, yet overwhelming in its horror and scale. Only twice has a nuclear weapon actually been used, on Hiroshima and Nagasaki. At no time has a large-scale nuclear war taken place. There is substantial disagreement among experts on what the consequences of such a war would be. To contemplate the threat of nuclear war requires an act of the imagination which is difficult, if not impossible, for most adults. It requires the young person to venture into an unknown and uncertain territory, into which many of the adults around him will not travel.

There has been an understandable though unfortunate tendency on the part of adults and society as a whole to keep these matters secret [31]. Nuclear weapons were initially developed during World War II, when debate was not possible. The prevailing attitude since then has been that further weapon development was largely a matter best left to scientific experts. It is not correct simply to attribute this silence to governmental policy. The subject is so painful, frightening, and seemingly technically impenetrable that most adults have chosen to deal with it by denial and avoidance. Until recently there has been a virtually total lack of public discussion of nuclear weapons issues.

Understanding the impact of the nuclear threat is complicated by the fact that the issue is but one of several complex, rapidly changing forces operating in our modern industrial society. Some of the attitudes and concerns which have emerged from questioning young people about the threat of nuclear war are pessimism about the future, fear, hopelessness, and the need to live in the present. These psychological phenomena probably are related to other factors as well. Such factors are the growth of technology itself, the changing patterns of family structure, broad disillusionment with the political system as evidenced by decreasing rates of voter participation, declining American prestige and power in foreign relations, and economic woes. It is difficult to separate in the studies conducted to date the role of the nuclear threat from these other social problems in explaining such pessimism and uncertainty.

### *Feelings Engendered in the Investigator*

To work with the subject of nuclear annihilation is painful and difficult for everyone—researcher, clinician, parent, or child. We were repeatedly reminded of this during our work on the Task Force. To consider seriously the possibility of nuclear war is to contemplate the destruction of life as it exists on the earth. It means the end not only of one's own life, but of the lives of everyone we love, indeed of all relationships which exist, possibly forever. It is a horrifying idea, the vision of a holocaust unlike anything the planet has known. Moreover, it is not clear that any one citizen can do very much by himself about the problem, so that there is an attendant helplessness as one confronts its reality. Thinking a nuclear war will occur obviates thinking about the future. Thinking about children and nuclear war is a particularly difficult task. Children—one's own or anyone else's—are far more vulnerable than adults to the effects of nuclear war. Their futures are potentially longer; their own children are yet to be born. Their genes, bones, and other tissues are more susceptible to the effects of radiation. Another part of the difficulty in achieving full awareness of the nuclear issue is the pain of realizing that one is potentially both victim and perpetrator of nuclear violence: victim because there is so little control over the weapons; perpetrator because those of us who are United States or Soviet citizens are members of countries that are spending huge amounts in tax dollars to build instruments of destruction whose sole possible use is to annihilate large portions of the human race. It is difficult for anyone to think about these matters. Beyond this, it is disturbing to think that the threat of nuclear war and the presence of nuclear power plants in and of themselves might be having an impact on our children's development.

We do not wish to overdramatize the problem but to raise an issue which is something like countertransference in psychotherapy and psychoanalysis, the deeper thoughts and feelings which are evoked in the clinician by the case material before him. Such troubling emotions provide one of the major reasons that so little work has been done in this area.

Furthermore, the subject itself, precisely because it is so painful and yet so politically controversial, is inherently divisive. On the Task Force we found ourselves often arguing or in conflict over minor details or wording. This was due not to a lack of good intentions, or to the personalities involved, the authors became convinced, but was the result of the inherently troubling, and emotionally and politically divisive nature of this issue.

### *Implications*

Our consideration of the difficulties found in undertaking work in this area is not meant to discourage research. Rather, we wish to urge caution about generalizing from limited findings, or, once having identified the concern of youth, in prematurely reaching a conclusion about its meaning. The need for conceptual models which can better enable us to relate feeling and thought to social and political actualities is evident.

Our own work has led us to the belief that the issue of adolescent trust is central to understanding how the nuclear threat may have an impact. We think that future research should focus particularly on the stage of adolescence and the related issue of trust in the future and pessimism. Yankelovich [32], Offer [33], and others have argued that the current generation of adolescents is considerably less hopeful and more pessimistic than previous ones. We have the impression that at least some of this generation of young people are traumatically confronted by the threat of nuclear war even as they emerge into a broader awareness of the larger world [16]. Their aloneness with the threat is part of its impact; they feel especially helpless as they see that neither they nor the adults around them are in control or command of the weapons. We are concerned that this may seriously limit their willingness to plan and prepare for the future, may encourage them in more present-oriented directions, and erode their fundamental faith in the society and adults around them.

The pain and difficulty connected with undertaking this subject needs to be addressed by anyone who is involved in working with the issue. One must confront and work through one's own feelings before beginning to study the problem or to help others. Learning the basic facts about nuclear devices and power plants, and experiencing the grief and personal struggle with the pain and powerlessness, are part of this process. In our experience, the pain and terror are so intense and difficult to handle that it is virtually impossible to work alone. Certainly a similar working through has been necessary for those researchers or clinicians dealing with other disturbing human situations. Inevitably, those who work with dying patients have had to explore their own attitudes toward death and dying [34,35]. Understanding the feelings evoked in treating the survivors of the Holocaust has proved essential for the therapists working with these individuals [36].

Others [37,38] have recently stressed the implications for mental health professionals of the impact of the nuclear threat so that a detailed review based on our experience is not indicated. As is evident, we do believe that a professional person must have worked through some of the pain and horror stirred up by the threat of nuclear war for himself/herself before trying to help others with it.

Perhaps the most important observation of our work in this regard is that one has to ask children or adolescents specifically about the nuclear threat in order to find out what they think and feel about it. This by no means implies that it should be asked, as in most clinical situations it may be quite inappropriate to inquire. However, if the nuclear issue is not brought up spontaneously by young people it is incorrect to conclude that they are not worried or concerned about it.

*Implications for Working with Parents*

In our experience, the following principles have proved useful in helping professionals who work with parents.

It is important both to reassure parents who ask about their children that the handling of any one concern, even the threat of nuclear war, will not make or break their relationship with their children.

It is essential in advising parents to assist them in becoming aware of the developmental stage, and capacity for thinking about the future, of their child. Recent work of Eric Chivian and Roberta Snow [39] suggests that quite young children (seven-year-olds) can be frightened about this issue. Nonetheless, they lack the cognitive ability to think about the future in ways similar to adults. Their thoughts are concrete, and what will be reassuring to them is very different from what will be reassuring to a 17-year-old. More direct reassurance is indicated with younger children.

When possible, it is helpful for the parent, just as for the mental health professional, to deal with some of the pain before broaching the subject with his or her children.

Children differ greatly in the degree of their concern about the threat of nuclear war. The first step for the parent should be to become aware of what, if any, concerns the child has about this issue. How one would initiate dialogue with a child who does not know anything about the nuclear threat is entirely different from how one discusses it with a youngster who is already worried about it. In our experience, almost all adolescents are aware of the nuclear threat and many are worried, while among younger children the degree of awareness is highly variable.

## CONCLUDING STATEMENT

Our fundamental experience has been that when children and adolescents are specifically questioned about the nuclear threat, a substantial number do indicate that they are worried and afraid. It is not possible from the available evidence to know what percentage of youngsters are deeply concerned about the threat of nuclear annihilation but all studies agree that some children and adolescents are. The problem of understanding what impact this worry and fear have on the personality development and daily lives of young people is complex. More research is much needed. Balanced, careful investigation can only take place with the recognition of the pain and difficulty for the researcher in studying the possible effects of the threat of nuclear war on children. Working through the troubled emotions engendered by the nuclear threat is necessary for researchers, teachers, parents, or mental health professionals as they try to help their colleagues, patients, friends, and children confront this issue.

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## CHILDREN'S FEARS OF WAR AND WHAT THEY MIGHT MEAN

(By Robert Hogan, University of Tulsa)

One of the more discouraging trends in American social science is the politicization of social knowledge, the use of social science research for partisan political purposes. With regard to the psychological effects of warfare on children, there are certain to be armchair or literary social scientists (psychiatrists, psychologists, etc.) who will provide opinions, based on their clinical experience, their interviews with "victims", etc. that will support or refute selected aspects of the administration's foreign policy, defense policy, or domestic budget. But the plain facts are that there are no empirical data, drawn from responsible research, that strongly or directly link warfare and mental illness in children.

Three major lines of research support the conclusion that there is no important or direct connection between warfare and childhood mental illness. The first is a set of papers in the late 1950's by Joseph Adelson and his colleagues at the University of Michigan. This research concerns the development of children's political knowledge and awareness. What Adelson shows in detail is that normal children below sixteen years of age, have no political awareness whatsoever. Although they may be willing to answer questions about foreign policy, their answers reflect an effort to please adults rather than an analysis of the issues involved. My own research using Adelson's methodology with gifted (IQ = 160) thirteen and fourteen year olds confirmed and replicated his findings precisely. Below sixteen years of age, children are impervious to world affairs.

A second pertinent line of research consists of studies of children of survivors of the holocaust. A very important paper by Gloria Leon of the University of Minnesota shows quite conclusively that there are no effects. Children of survivors of the holocaust are indistinguishable from other, normal children of the same age when compared on the standard indices of adjustment and/or psychopathology. Even though Dr. Leon's findings have been replicated by other researchers, they have encountered a good deal of political (but not intellectual or scientific) resistance.

The third line of research starts with a study by Anna Freud and John Bowlby at the Tavistock Clinic in London. This study examined the effects of the London Blitz had during WWII on English children. The principal finding was that those children who had been sent out to the countryside suffered more in psychiatric terms than those who endured the blitz. The reason is straightforward: the primary cause of emotional disturbance in children is separation (physical and emotional) from their caretakers. The effects of warfare are frequently confounded with the effects of separation. Children can endure almost anything if they are in proximity to and secure in their relationships with their parents or caretakers. Consequently, any conclusion regarding children's fear of war must be placed in the context of children's fears of being separated from their parents.

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## PREPARED STATEMENT OF JOSEPH ADELSON, PROFESSOR OF PSYCHOLOGY, UNIVERSITY OF MICHIGAN

I believe there are several questions deserving your attention. How prevalent and intense, in actuality, are fears of nuclear war among American children and adolescents? Are they so intense as to suggest a genuine threat to the mental health of the young? How do children understand the political and military problems of a nuclear age? How competent is the scientific knowledge on some of these issues? Should we have special curricula designed to teach about the dangers of nuclear warfare, and if so, how ought they to be taught?

Since the putatively expert views on this issue are so often offered through anecdotes—the sensitive 16-year-old lad who told me this or that, and so on—allow me to offer my own personal, non-systematic impressions. Among the youngsters I come into contact with I observe no marked degree of preoccupation with nuclear warfare. This is not to say that they would not talk about it if the issue were raised, only that it does not intrude—as a deeply felt anxiety would—into general discourse. The educators I know do not report it as an intense concern among the children they teach. I am in fairly regular contract with many psychotherapists, and I haven't ever heard any of them talk about the nuclear issue as a preoccupation among their patients, children or adults. In my work as a supervisor of psychotherapy I read literally hundreds of process notes—accounts of therapeutic interactions—each month, and I cannot recall a single instance where the issue arose.

If we look at the scholarly literature, we get precisely the same impression. Among a group of twelve recent texts on child and adolescent psychology and psychiatry, one does not find a single instance where the fear of nuclear war is mentioned as a problem in the minds of youngsters. When we look more closely, at what is reported about the fears of children, one finds that fears of wars in general are of minor importance compared to other fears that children have. It is mentioned by only 8% of girls, and is scarcely mentioned at all by boys ages 7 to 12. In a recent study by Richard Lonetto, on children's conceptions of death, we learn that death is only rarely associated with war or bombing; for example, in the oldest group of youngsters studied, those 9 to 12, the most common associations are to being seriously sick as through a heart attack, or dying of old age. The next largest category is stabbing, followed by electrocution. Of the 68 cases reported, only one child produced a drawing involving war.

Now I know it is very difficult to demonstrate a negative. It can always be said that if you did find it, it is because you asked the wrong questions or looked in the wrong place. One is also subject in these discussions to a heads-I-win-tails-you-lose strategy, wherein the presence of fears means that they exist, while their absence also means that they exist but are unconscious, due to psychic numbing and the like. One may also be made to seem callous or insoucient or obtuse about the issue itself. But no one is denying that nuclear war is an agonizing issue, that all rational individuals are anxious about it, and that many youngsters, particularly older adolescents, show the same level and degree of concern that the rest of us do. It also should be obvious that children will be responsive to the more general anxiety felt in the larger community. They are, on the whole, attentive to what they hear from their parents, and in school, and from the mass media. Children whose families are politically active in the nuclear freeze movement will almost surely show a higher level of anxiety about nuclear destruction than other children. Children exposed steadily to such possibilities through classroom instruction will also no doubt show a higher level of anxiety. In view of the wide publicity recently given to the idea of nuclear disarmament, it is no suprise at all that there is a rise—among all levels of the population—in degree of awareness, concern, and anxiety. I am also quite sure that were you to ask, you would find a substantial increase in the percentage of those who worry about contracting AIDS, or about being shot down by a Soviet fighter plane during an overseas flight. The really more difficult question for us is whether we are dealing with an actual threat to the psychological well-being of children and adolescents. I have seen no evidence at all which makes this seem plausible.

A question germane to this topic is how children come to develop a mature understanding of social and political concepts. Over the years, we have interviewed rather intensively about 1000 youngsters, from the ages of 10 through 18, in three different countries. We find that it takes a long time for the typical youngster to acquire a recognizably adult capacity to think about political and social issues. Through the early years of adolescence, children simply do not understand such concepts as "government" or "society" or "the state," or any of the terms having to do with large collectivities. The reason for this is that they are unable to master abstract ideas until later in adolescence. There is a strong tendency to think about abstract concepts in a concrete and personalized way. For example, if you ask about the justice system, you find that younger adolescents think of it in terms of criminals and policemen and judges, and cannot grasp comfortably the larger principles involved. If you ask about government, they tend to think in terms of personages, such as the governor or the president. Because of this limitation, younger adolescents are unable to manage questions dealing with abstract political principles. They tend to give sentimental answers, based on who seems "nice" or "friendly." Until they reach late adolescence, and even then not commonly, they find it difficult to deal with complex or interacting influences in the political realm; they find it difficult to weigh the relative merits of two or more differnet courses of action; they cannot think in terms of multiple influences on a single event; their historical sense is quite limited; and they cannot look past the immediate future in assessing the consequences of a political decision. (I will append a recent article which summarizes some of these findings.)

These limitations in cognitive grasp have a bearing on the questions before us in two different ways. To begin with, it is quite clear that we must treat with the highest degree of caution statements made about the attitudes of youngsters about nuclear war, nuclear deterrence, or for that matter, any complex political or social issue. By now, almost everyone knows how difficult it is to ask unbiased questions of adults; it is infinitely more difficult to do so of youngsters, because of variations in cognitive level and variations in information. None of the studies I have seen on this topic takes these into account, and indeed, none of the studies seem to show any awareness that a literature on the topic exists. The studies I have seen are without exception so flawed in methodology as to be useless. It is of some interest that not a single empirical study on children's nuclear fears has appeared in the leading journals in our field, and that none of them has been carried out by our leading scholars.

A second implication: the designing of curricula on these are related topics must be undertaken with acute sensitivity to the age level of the children being taught. Anyone sampling the writing on nuclear strategy will become aware that the issues are extraordinarily intricate, requiring the highest levels of hypothetico-deductive reasoning. It is difficult to see how it can be taught effectively—even in attenuated fashion—prior to the later years of adolescence. William James wrote that "to detect the moment of the instinctive readiness for the subject is, then, the first duty of every educator." We fail that duty if we impose on children, prematurely, material they are unable to absorb.

To sum up: I believe we are dealing with a "crisis" which is essentially fictive, which has been invented. It seems not to be palpable except to those with a particular political commitment. It is troubling that this Committee's time and energy are taken up with an imaginary crisis, at the expense of the authentic and quite profound troubles confronting children and families today.

[From the American Educator, Summer 1982]

## RITES OF PASSAGE

### HOW CHILDREN LEARN THE PRINCIPLES OF COMMUNITY

(By Joseph Adelson) [1]

How do youngsters in the vital transitional period of pre and early adolescence deal with the ideas of the social sciences and the humanities? How do they cope with the concepts they must absorb in learning about history or civics or political science or literary studies? Does psychology have anything useful to tell us about how to teach those subjects during that difficult age? Do we know something that would help us accelerate learning or deepen it or strengthen the child's grasp on what he has been taught?

The work I will report here is based on two major investigations, one cross-national, comparing over three hundred youngsters in our country, England, and Germany, ranging in age from ten or eleven to eighteen, from the fifth grade to the twelfth. The second study, in which we interviewed about 450 adolescents, covered the ages from eleven and twelve to eighteen. This study was directed and analyzed by my colleague, Judith Gallatin. The second study concentrated upon youngsters in an urban area, largely blue collar in origin, with an equal number of blacks and whites.

Our research instrument was the open-ended interview. After a great deal of trial and error, we hit upon an interview format that began with the following premise: a thousand people leave their country and move to a Pacific island to start a new society. We hoped that the use of an imaginary society would help free some of the children, the young ones particularly, from their preoccupation with getting "the right answer." Given this framework, we then offered our youngsters a great many questions on a wide variety of political, social, and moral issues: the scope and proper limits of political authority; the reciprocal obligations of the individual and the community; the nature of crime and justice; the collision between personal freedom and the common good; the prospects for utopia; and so on. Put this way, it all sounds rather formidable, but the questions themselves were straightforward and generally quite concrete. In the second of the studies, we also introduced a number of questions having to do with urban tensions: the sources and outcomes of poverty, the relations between citizens and the police, and the proper channels for citizen protest. The interviews took, on the average, an hour to complete—the older the child, the longer the interview. We tape-recorded and then transcribed faithfully, including silences, uhs, "you knows," and grammatical incoherence, since we felt that the process of achieving a response might in some cases be as interesting as the response itself.

Since there are far too many findings to report even in summary form, I have identified five topics that I think are of central importance, since they influence so many other areas of social thought: the conceptions of community and of law, the growth of principles, and the grasp of human psychology and of social reality. In each of these topics we see some significant and at times startling changes in children's understanding during the adolescent years. I will concentrate here particularly upon those taking place in the earlier part of that period.

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[1] Joseph Adelson is professor of psychology at the University of Michigan at Ann Arbor. This article is adapted from a speech given in March by Adelson at the Urban Development Forum, which was sponsored by Research for Better Schools in Philadelphia.

### THE COMMUNITY

The first piece of advice to give any teacher preparing to work with ten, eleven, and twelve-year olds is that one ought not to assume the child is talking about the same things you are. We respect to such concepts as "government" or "society" or "the state," the youngster may talk in a seemingly appropriate fashion; yet, when you extend the conversation or query him a bit, you may likely find something close to a conceptual void. At the threshold of adolescence, children find it difficult to imagine impalpable social collectivities; they do not yet enjoy the sense of community.

We can illustrate this graphically by looking at the answers eleven and twelve-year-olds give to the question "What is the purpose of government?" To begin with, many of them cannot answer the question at all. Either they fall mute entirely or provide obviously confused or irrelevant responses. In our cross-national study, we found that 15 percent of eleven-year-olds could give no answer at all to the question. More revealing yet is the number who are unable to give adequate answers—that is, answers of sufficient coherence and complexity to allow their being coded. The category "Simplistic, Missing the Point, Confused, Vague" accounts for 43 percent of responses among twelve-year-olds. A certain confusion about politics, government, law, and society is endemic among preadolescent youngsters. But the failure to understand the idea of government and similar concepts of the collectivity—is especially significant because these are the regnant ideas in thinking about social, moral, and historical issues, and confusion, murkiness, error, and failure to grasp these concepts makes itself felt throughout a much larger domain of cognition.

But to say that these youngsters are mistaken or confused does not take us very far, since it does not tell us about the specific nature of the cognitive flaw. To understand that, it may be best to turn to some specific responses, chosen at random, from eleven-year-olds of average intelligence, to the question on the purpose of government:

To handle the state or whatever it is so it won't get out of hand, because if it gets out of hand you might have to . . . people might get mad or something.

Well . . . buildings, they have to look over buildings that would be . . . um, that wouldn't be any use of the land if they had crops on it or something like that. And when they have highways the government would have to inspect them, certain details. I guess that's about all.

So everything won't go wrong in the country. They want to have a government because they respect him and they think he's a good man.

What strikes us first about these statements is that, in each case, the speaker seems unable to rise securely above the particular. The child feels most comfortable in remaining concrete, by turning to specific and tangible persons, events, and objects—hence "government" becomes a "him," or the child talks about crops and buildings and highways. Of course an effort is made to transcend particularity, to discover a general principle or idea, but the reach exceeds the grasp, as we can see vividly in the first of these excerpts in which the speaker, seeking a general principle (" to handle the state"), give up and subsides into concreteness ("people might get mad or something").

This shift from concrete to abstract modes of expression during the course of adolescence is a dramatic one. In our cross-national study, no eleven-year-old child was able to attain high-level abstractness in discussing the purpose of government; and no eighteen-year-old gave an answer as entirely concrete. Most eleven-year-olds (57 percent) can give only concrete responses. At thirteen and fifteen, a low level of abstractness is the dominant mode of conceptualizing government. And at eighteen, a strong majority of youngsters achieve a high level of abstractness.

The findings immediately above are based on our cross-national survey. In other studies we have tried different ways of categorizing responses, but the pattern remains essentially the same.

Unable to imagine "the community"—that is, the invisible network of rules and obligations binding citizens together—the child at the threshold of adolescence does not quite understand the mutuality joining the individual and the larger society. He does understand power, authority, coercion; indeed, he understands those all to well, in that his spontaneous discourse on "government" and the like relies heavily—at times exclusively—on the idea of force, authority being seen as the entitlement to coerce. Yet even that is imagined only concretely: it is the policeman who pursues and arrests the criminal, the judge who sentences him, and the jailer who keeps him. The less punitive purposes of the state are less readily discussed in large part, we believe, because the child, lacking a differentiated, textured view of collectivities, cannot quite grasp how they function or what their larger goals might be. The child at this stage may know that the government does things—fixes the streets, let us say—and that it does so in order to benefit the citizenry as a whole. But beyond such tangible activities leading to such tangible benefits, the need and purposes of the community remain a mystery, impenetrable.

Perhaps the most consistent finding we have is that the adolescent years witness a shift from a personalized, egocentric to a sociocentric mode of understanding social, political, historical, and moral issues. The sociocentric outlook is essentially absent at the beginning of adolescence—that is, when the child is ten, eleven, or twelve; yet, it is more or less universal by the time the child is seventeen or eighteen, with most of the movement taking place in the period we are talking about, somewhere between thirteen and fifteen years of age. The shift is dramactic in that it involves a fairly complete reorganization of now these issues are perceived and interpreted. We have here an expanding capacity to think in terms of the community. It does not mean that the youngster, having achieved that capacity, is held captive by it. It does not mean that discourse about society, from that point on, ignores individual needs and perspectives. It does mean, however, that the youngster, having achieved sociocentrism, is able to weigh the competing claims for ego and other, of the individual and the state, or the larger community. Until that point is achieved, social perceptions tend to be truncated, and social judgments and ratiocenation are vulnerable to the distortion of a narrow individualism.

### THE LAW

Perphaps the most unnerving discovery we made upon first reading the interview transcripts was that a substantial minority of our youngest respondents were capable, on occasion, of the moral purview of *Attila* the Hun. On questions of crime and punishment, they were able—without seeming to bat an eyelash—to propose the most sanguinary means of achieving peace and harmony across the land. Here are three examples, all from the discourse of nice, clean-cut middle American thirteen-year-old boys, telling us their views on the control of crime:

On the best reason for sending people to jail: Well, these people who are in jail for about five years must still own the same grudge, then I would put them in for triple or double the time. I think they would learn their lesson then.

On how to teach people not to commit crimes in the future: Jail is usually the best thing, but there are others. . . in the ninettenth century they used to torture people for doing things. Now I think the best place to teach people is in solitary confinement.

On methods of eliminating or reducing crime: I think that I would. . . Well, like if you murder somebody you would punish then with death or something like this. But I don't think that would help because they wouldn't learn their lesson. I think I would give then some kind of scare or something.

These excerpt are *not* randomly chosen, since we have selected case marked by colorful language and thought. Yet neither are they altogether atypical, in this sense—they represent only the more extreme expressions of a far mor general social and moral outlook: the tendency to see law, government, indeed most other institutions, as committed *primarily* to the suppression of wayward behavior. In this view, human behavior tends toward pillage and carnage, and the social order is characteristically on the brink of anarchy. That may overstate it a bit, but not by much. Gradually but steadily, however, an entirely different view of the purpose of law emerges in later adolescence. Toward the end of the period we are dealing with, and certainly by the time childern are fifteen and sixteen, the dominant stress upon violence and injury has begun to diminish markedly, and it will more or less vanish by the time the child reaches the age of eighteen.

Two other motifs similarly signal the end of the pre and early adolescent period. One of these is the tendency to see laws as *benevolent* as against restrictive, as designed to help people. A characteristic statement: "The purpose of laws is to protect people and help them out." The purpose of laws is to protect people and help them out." Another motif, somewhat related, we suspect, is one that links law to the larger notion of community, that sees law as providing a means for interpersonal harmony, either among competing social groups or in the nation or the state as a whole (". . . so that the country will be better place to live"). These changes, from a purely restrictive to a benevolent or normative view of law, are as fundamental and quantitatively decisive as a shift from the concrete thinking to the abstract.

### PRINCIPLES

We have so far observed two major developments in political thought from the onset of adolescence to its end: the achievement of a sociocentric perspective, the ability to think about social and moral and philosophical issues while keeping the total community in mind; and the gradual abandonment of an authoritarian, punitive view of morality and the law. We now add a third theme: the youngster's capacity to make use of moral and political principles—ideas and ideals—in organizing his thinking about social issues. Once available, that capacity alters—decisively and irrevocably—the youngster's definition of social issues, and at the same time it alters the child's sense of himself as a social and political actor. Most current theories of political attitudes and thinking stress the central significance of more or less stable, more or less complex systems of belief, the presence of which allows the person to organize his understanding of social and political reality. It is in the period we now have under consideration that we first see the emergence of those systems, as the child begins to use principles in coming to legal, moral, political and social judgements. To judge by our interviews, however, it is a rather late development in adolescence. We seem to see the first signs of it when the child is between fourteen and sixteen, and the use of principles does not make itself felt fully until the end of the adolescent period.

Perhaps we best begin by showing just how the older adolescent makes use of principles in making judgements on social issues. Here is an eighteen-year old who has just been asked what the government ought to do about a religious group opposed to compulsory vaccination:

Well, anyone's religious beliefs have to be tolerated if not respected, unless it comes down to where they have the basic freedoms. Well, anyone is free until he starts interfering with someone else's freedom. Now, they don't have to get their children vaccinated, but they shouldn't have anything to say what the other islanders do, if they want their children vaccinated. If they're not vaccinated, they have the chance they may infect some of the other children. But then that's isolated, that's them, so if they don't get vaccinated, they don't have anyone else to blame. (Do you think that the government should insist these people go along with what the majority has to say, since they're such a small minority?) No, I don't think that the government should insist, but I think that the government should do its best to make sure that these people are well informed. A well-informed person will generally act in his own interest. I never heard of religion that was against vaccination. (There are religions that are against blood transfusions.) If they want to keep their bodies pure . . . well, like I said, I think that a well-informed citizen will act in his own best interest. If he doesn't, at least he should know what the possibilities are, you know, the consequences. So I think the government's job is to inform the people. In that case, at least, to inform them and not force them.

Younger children, when faced by a question of this type, find it difficult to reason on the issue. They come down hard on one side or the other or cannot make up their minds and therefore hedge; in support of their position, they may put forward a principle-like phrase, such as "freedom of religion," but they cannot do much with the idea except assert it. What we see in the excerpt we have given which we choose not because it is "brilliant" but because it is characteristic in late adolescence—is the capacity to advance a general and generalizing principle, which then allows the youngster to talk about specific issues with some flexibility. These formulae need not be absolute in nature, nor rigidly applied; indeed, in many cases the youngster brings forward circumstances that call for a suspension or modification of the principle.

How does the youngster come into possession of these principles? As far as we can tell, they are not constructed *de novo* but are acquired by the most mundane processes of learning, in the classroom or through the media, in the church or at home. At moments one can almost see the civics or history textbook before the child's inner eye as he struggles with the question. Here is a youngster trying to answer a question as to which law should be made permanent and unchangeable:

Well, freedom of speech is one, as you said. And then one law, well, I don't think you should be in prison for a longer time than twenty-four hours without them telling the charge against you. Or freedom of the press or freedom of the religion, that should never be changed, because anybody can pick any religion they want. There's no certain religion that everybody has to go by. (Can you think of any other kind of law that should not be changed or is that about it?) There are some more laws, but I

> know what they are, but I can't really put it into laws, the Bill of Rights, you know, the first ten amendments of the Constitution, uh, them laws, you know, that I haven't mentioned. They should be put in there, in the United States Constitution. I can't remember what they were exactly, but if I had a history book, I'd look them up, you know.

Obviously, he has absorbed some of the principles of constitutional democracy, albeit a bit imperfectly. Nevertheless, it is almost certain that the mode of discourse we see here is not exclusively a function of learning; it depends also upon the growth of cognitive capacity. If we take a look at the interviews of average children in the early and middle-adolescent period, we get some sense of the limits of learning before the child is intellectually ready. Ninth and tenth graders have also been exposed to the fundamental ideas of constitutional government, at least in the students we worked with; yet, it seemed to us that the learning does not quite "take," not completely, not sufficiently to allow the child to make use of it in ordinary conversation. The principles do not "come to mind," even when the child is primed by how the question is phrased. In writing the interview item on permanent laws, we were aware that younger children would not spontaneously think of laws or constitutional provisions guaranteeing fundamental freedoms, and so we decided to prime the pump, so to speak, by mentioning "freedom of speech" as an example. Nevertheless, very few of our younger subjects took the hint. Instead, they concentrated on those issues—crime and punishment, violence and injury—that most concerned them and generally in the straightforwardly authoritarian manner we mentioned earlier:

> They should have a law, like people should stop stealing, and if they do steal, they would have to stay in jail for about a year until they settled down and stopped doing that. And they should stop killing each other because that's not right.

And even when the child is not entirely obsessed with fantasies of danger, the response to this question usually betrays an inability to make general statements:

> Don't litter. Don't steal. Keep off the grass. Don't break windows. Don't run up the stairs. Don't play with matches. Keep matches out of reach of little children.

We do not want to make either too much or too little of the child's acquisition of principle. It does not usher in a golden era of humanistic wisdom. The ordinary youngster acquires the conventional ideas and ideals of the world about him, and unless he is intensely interested in social or philosophical or literary topics, he is unlikely to have ideas that are discernibly unique or penetrating. Yet on the other hand, it is a development of some importance. One obvious reason is that until the child acquires a capacity for general ideas, he does not understand most of the language of social and moral discourse that envelopes him. He is in that sense like the tourist in a foreign land, unable to speak or read the indigenous language, and not quite sure what the customs signify. If he is facile enough, he may be able to mimic some of the argot and conduct of the natives around him, yet studied inquiry would soon reveal the lacunae and confusions. Time and again in our interviews with pre- and early adolescents—those, let us say, between eleven and fourteen—we come upon such instances wherein the child's mimetic talent allowed him to talk as though he knew the language when, in fact, he did not. The majority rules, the child says. Ah, we say in turn, so tell us about the majority. Then the child replies, oh, that's when everybody agrees.

Achieving a grasp of principle also means that the child can resist the appeal of the immediate, hence is less vulnerable to mere sentiment. The government wants to build a highway and needs some farm land. The farmer resists; the authorities insist. Who is right? Without some general idea to aid him—either the virtues of property or the common good or eminent domain or some such—the youngster is not far from helpless in telling us what ought to be done, and why. Either he sides with the farmer, sentimentalized as the underdog, or with the government, sentimentalized as the guardian of the public weal. Without the guidance of principle, he is, we feel, so subject to the tug of emotion, and thus of demagoguery, that he cannot make reasoned—and hence reliable—decisions. He is much too responsive to the evident good.

One more comment before we leave this topic. It may be worth repeating that the term "principles" refers to both ideas and ideals. The increasing conceptual grasp of the adolescent allows him to come to an understanding of the conventions of social and moral reality as understood by the community at large. At the same time he becomes capable of cognizing the "irreal" as well, and hence of being in touch with the values, hopes, and utopian beliefs of the culture as a whole. Hance the grasp of principles means that the child can become both more "realistic" and "idealistic." It has been our unfortunate habit to concentrate upon "adolescent idealism" as though that were a dominant moral outlook of the adolescent period. In fact, the child's realism, the child's becoming socialized to the conventions of the culture, is a far more conspicuous feature of this era. But what is perhaps most important is that we see a dialectic between these attitudes, between being realistic and being idealistic.

### UNDERSTANDING HUMAN BEHAVIOR

Near the beginning of the interview schedule we introduced a series of questions about law and laws, some of which we have already mentioned. What is the function of law? What would happen in a world without law? How and why do people get into trouble with the law? In developing the topic, we want to get some sense of how youngsters understand the psychology of malfeaseance. One of our questions put forth the following proposition: some percentage of people need laws to keep them from getting into trouble, while others "follow their consciences naturally and do not need laws." We then asked what accounted for the difference between these two types of people.

What interests us here are not the particular theories proposed—these are fairly commonplace—but rather the somewhat abrupt shift in the child's capacity to talk about human psychology, a shift that in its rudiments seems to take place fairly early in adolescence—most of the time it is visible between the ages of eleven and thirteen. Here are some typical eleven-year-olds trying to distinguish between those who are naturally law abiding and those who need laws to guide them:

Well . . . most people, some people they don't like, like speeding, they don't like to do this, but some people like . . . maybe . . . grownup people some people like to speed a lot.

Well about the person I think he had been pushed around and people don't like him and stuff. The people that do not like the laws—well they probably had friends and he didn't get into much trouble so they just got used to it.

Well . . . (pause, question repeated) well, it could be that the person who thinks that they were law abiding, I mean the criminals, they see things wrong. (How do you mean?) Well I mean they see . . . I can't explain it.

One is struck immediately by the sheer confusion of these comments: ideas—even phrases—do not quite connect to each other. There are gaps in discourse. Our experience has been that this sort of confusion suggests not so much ignorance, or fool's knowledge, as it does the child's earnest attempts to reach something just out of his grasp. He does not quite have the conceptual means to achieve a dimly sensed end. We sense that our third respondent is trying to say something about the social outlook of the delinquent ("they see things wrong") while the second is speaking psycho-historically, that is, trying to link miscreancy to past experience ("he had been pushed around . . . and stuff"). In these instances we feel that the child's essential problem is a difficulty linking part to whole, particular to general, and vice versa. We may imagine that given the category "law abiding," the child's mind hits upon "speeding" as an instance of that larger category but cannot go beyond that, that is, cannot yet link speeding to other forms of social malfeasance, nor can he develop a differentiated view of the category "law abiding" that will allow him to classify different instances within it.

Even when the eleven-year-old's response is not quite so confused, it generally reveals some distinct limitations in the appraisal of human behavior. Here is a more typical response from a child at this age—it is neither the least nor the most advanced:

Oh, well, someone—their mom and dad might separate or something and neither one wanted them or something like that, didn't like them very much and oh, if they happened to turn bad, I mean just, and they had trouble—pretty soon if they keep doing that and pretty bad conditions they'll probably get in a lot of trouble.

Once we get into this long, meandering sentence, we discover that it contains not one but two theories of micreancy and its sources—the first of these having to do with parental rejection, the second suggesting that trivial sins that go uncorrected lead implacably to larger ones. But here we see even more clearly the problem in being unable to find a suitable language. Our youngster speaks only about specific acts or feelings—as though he were the most naive type of behaviorist, one who had vowed to avoid all speculation about internal states of mind. In a year or two this very youngster, proposing the same theory, will almost certainly be able to tell us that kids who come from broken families feel bad about themselves and become trouble makers; but at this moment, although the child seems to have that general idea in mind, even the concept "broken family" may be a bit too abstract (or too unfamiliar) to state. Similarly, even such familiar denominatives as "trouble maker" or "delinquent" may be difficult either to understand or to express comfortably. At any rate, we note at this age level—although not universal even here—a common reliance on action language, the child being unable to talk about "traits" or "character" of other structures or tendencies of the personality. Instead he talks about specific acts of malfeasance.

Children at this age have no stable idea of the personality nor an understanding of motives beyond the most simple (getting mad, getting even, teaching a lesson). The youngster cannot think in terms of *gradations* of motives nor of *variations* in personality. Nor can he formulate the impact of the situation upon the personality. Nor can he propose a theory of incentives beyond simple coercion, nor can he recognize the symbolic or indirect effects of rewards and punishment.

What we have, in short, is a markedly impoverished conception of the personality. Motives are few and starkly simple—fear, anger, revenge, envy, the wish to be liked. Motives tend to be either/or in character—the child cannot easily think in terms of conflict of motives, of compromises among them, or of other dialectical processes that would ultimately determine behavior.

We also see a sharp limitation in time perspective. The child at this age seems unable to grasp fully the effect of the past upon the present, in that he does not seem to consider the effect of personal history upon current conduct. That statement needs some qualification. The child may mention the immediate precipitants of a course of current conduct but finds it difficult to link the present to more remote events in the person's past. Equally striking is the difficulty the youngster shows in tracing out spontaneously the potential effect of curent conduct upon later events. Again, we do not want to overstate this: if the question clearly asks for future consequences (what would happen if there were no laws?), the child will imagine those consequences. But in ordinary discourse, the "time window" seems quite narrow. Beyond that, the youngster is rarely able to imagine dialectical processes taking place in the future as the result of decisions taken today—that, for example, an unpopular law may ultimately generate law breaking or other forms of underground opposition.

It may seem to be loading the dice somewhat to take our examples so exclusively from the realm of crime and punishment, given the child's obsessive involvement with these issues. Yet we see these difficulties elsewhere, even when the child is discussing virtue or merit, and for some of the same reasons—an uncertain sense of major and minor, relevant and irrelevant.

## APPRAISING SOCIAL REALITY

There are some surprising similarities between the preadolescent patterns in learning to understand human psychology and the gradual, at times faltering, steps he takes in developing a sense of social reality. In both instances we come across problems in classification: what belongs to what; how to construct a hierarchy of types and functions; how to specify boundaries and limits. In both instances we perceive a shortness of time perspective, the youngster being unable initially to imagine the effect of the past upon the present, or more than the immediate effect of current social events upon the more or less remote future. And in both instances we note what can only be called a thinness of texture: the child does not seem to grasp ambiguity, complexity, or interaction.

We want to begin by looking at a specific social institution in order to describe the changes that take place in the youngster's grasp of a structure and function and of its relation to larger social processes. We chose the idea of "political party" for several reasons; to begin with, almost all children raised in democratic countries are exposed to information about political parties, and in the fullness of time, achieve an adequate understanding of them; secondly, as an institution, it is neither so diffuse nor so various that different youngsters may have had entirely different experiences of it.

It comes as a surprise to most people how little children at the onset of adolescence actually understand about the nature and purpose of the political party. Since the knowledge of parties seems to be so ubiquitous and since the child is exposed to that knowledge regularly in the mass media, at home, or in school, we are likely to assume that the exposure has resulted in some learning, especially so if the child is the kind who is alert to current events. Nevertheless, a distinct majority of children at the age of eleven, twelve, and thirteen cannot give satisfactory answers to straightforward questions on the purpose and functioning of political parties—and by "satisfactory" we mean no exalted standards of comprehension. Either they cannot answer the questions at all (about 15 percent at age eleven) or they give answers that are either too diffuse to be coded or plainly in error. What is of particular interest is the kind of mistake the child is liable to make when he does venture an opinion. The most common of these is the tendency to confuse the functions of the policital party with those of government as a whole. The party is seen as making laws or carrying out either the general or specific tasks of the state. But here are some characteristic expressions of the misunderstanding from some twelve-year-old boys chosen randomly:

> Ah, what like the United States? I think they have these parties because they want to help the United States be a better state, I mean a better country and things like that. And then that's why they have one every one or two years.

> I guess because if they wanted a law a certain way then they could have it that way. (probe) I guess if they had a law that people couldn't kill, I guess they didn't like it that way. (Didn't like what?) Some people don't like laws and some people do.

> To keep people in order. (What else?) That's all I have to say. (Further probe) To keep people in order like I just said.

In these examples we sense that the child cannot yet classify, that is, cannot yet establish boundaries between the separate functions and structures of the political process. Since he has heard that parties are involved in elections, he may see them as carrying out elections; since he grasps vaguely that they are connected to government, he imputes to them some of the functions of government.

We might mention here, somewhat parenthetically, that these confusions and errors are by no means limited to the topic of the political party. We find much the same pattern in the early years of adolescence, when the child is addressing more general questions about governing. They can find it difficult to distinguish among the legislative, executive, and judicial apparatuses of the state; for that matter, they can find it difficult to distinguish between the government, the state, and the nation, all of which seem to blend into each other. That confusion of element, part standing for wholes and vice versa, characterizes the child's early apprehension of social and governmental institutions.

The next stage is marked by an accurate, although rudimentary, grasp of institutional function. It is a distinct advance over the confusion and error we have seen in the examples just given, and yet compared with what the child will later be capable of, it is marked by what we will call *thin* texture. The child will fasten upon a single, at most two, aspect of structure of function. With respect to political parties, we will be told that the party puts forward candidates or stands for certain ideas or supports candidates. From the interview:

> To help the candidates running to have a better chance of getting the office.

> Well, so that the people can express their views.

> It's to help the people find their candidates and to back the people when they are candidates.

The change from thin to thick texture is difficult to describe succinctly, since it may involve somewhat different processes. In the most simple form, we find a capacity to describe multiple aspects or functions of the institution being discussed. Thus, in relation to political parties, the youngster may tell us that parties both represent positions *and* support candidates, or that they both finance *and* organize for issues *and* their nominees. A step beyond that level is the ability to synthesize several ideas in a single statement. Here is an eighteen-year-old speaking on the advantages of political parties:

> A well, if you have a whole bunch of people with different ideas but have a government that's to be run, you are not going to get much accomplished, but if you put them together in a group, and then they pool their assets and ideas, then they have enough power to do something about what they want, than everybody just talking about what they want.

Now this is by no means an extraordinary statement; the ordinary citizen would make it. And yet its very ordinariness may conceal from us that an important conceptual advance has taken place. She is telling us that parties are both efficient and potent in that they are able to unify otherwise disparate political voices: ideas in unison can be powerful, as they are not when voiced separately.

For reasons that are still obscure, at least to me, the degree of achievement of hypothetico-deductive reasoning that Piaget and other cognitive theorists have demonstrated to be involved in advance modes of reasoning in relation to scientific problems seems to be far less widespread in the social and philosophical reasoning of adolescents. When this degree of achievements occurs, it seems to take place much later in the child's development. The kind of cognitive operations that many children can perform at the ages of thirteen to fifteen when confronted with the mathematical and scientific problems seem to elude the grasp of all but the most exceptional youngsters when they confront problems of equivalent difficulty in the realm of social and humanistic ideas, and even among that exceptional group the level is not achieved until the age of eighteen.

## SOME CONCLUSIONS FOR TEACHING

To return to the question we began from: Can the teacher of adolescents learn something from these findings? Can they improve the way we teach social and humanistic subjects?

In the course of preparing this essay, I read a good deal of the technical literature on learning, on concept formation, on whatever seemed germane, giving especially close scrutiny to those writings—few in number, alas—that make some effort to apply what we have learned in the laboratory to the actualities of teaching the young. It is not an edifying experience. The will is there, the earnestness, even a certain bumptiousness. Yet almost invariably something seems to be lost in translation, and with the best will in the world, we seem generally unable to use empirical findings, even reliable ones, to provide useful counsel to the educator. I think it can be done, but it will not be done easily, and it will certainly not be done by those who, like myself, are not directly engaged in teaching primary and secondary school youngsters. For that reason, what follows is offered modestly, indeed timidly.

When I first began doing the studies reported in this paper, my next-door neighbor was a man who taught social studies at our local junior high school. I soon found myself trying out my findings on him, and although I don't know whether my observations improved his teaching, his observations on my findings certainly sharpened my research. One day I consulted him about the following problem. The interview schedule contained several questions on taxes through which we had hoped to explore the child's understanding of the larger social functions of taxation, for example, to provide incentives or deterrents for certain economic or social activities, or to redistribute income. The power to tax is the power to destroy, as we all have been told; when does the youngster grasp this and equivalent ideas about the indirect functions of the taxing authority?

As soon as we began doing the interviews we became aware that we had overshot the mark, in that the child's understanding of taxes was far less developed than we had expected it to be. Some of the younger children among the ten and eleven-year-olds understood next to nothing, only that the tax was something collected at the store when you bought something or something that one's parents had to pay to someone. More commonly, children did understand that the function of taxes was to raise revenue for government, but few of them could tell us more than that, and only a handful understood much about the use of taxes as a means of channeling economic and other behavior.

One day I mentioned to my neighbor the general nature of these findings and how surprised our research group had been to discover how little children understood about this topic. He thought for a moment, then said that he himself was not surprised. Taxation was a required subject matter in the ninth grade civics course he taught, and he had found that children had trouble with it, indeed so much so that he tended to give the topic short shrift, moving on to more engaging issues as soon as he had covered the fundamentals. But why do the children have trouble, I asked. He wasn't sure, but he suspected it was because they did not find taxes to be of any direct importance to them. It was seen as an "adult" concern, and as a consequence they were bored. Being bored, they would not learn the information. That was, I should say, a characteristic formulation by my neighbor; he tended strongly to a motivational theory of learning, holding that if the child's interest could be captured, learning would follow as the night the day. As for myself, I was then in the first flush of a newly acquired Piagetism and urged that perspective on him, suggesting that the youngsters were not cognitively ready for those materials and that their boredom and inability to learn reflected an underlying confusion due to conceptual immaturity.

I am now not at all sure that I was right and my neighbor wrong, or vice versa. I suspect that we were both partly right, in that we had touched upon the right dimensions; interest or motivation, cognitive capacity, and information (or knowledge). In this essay I have stressed cognitive growth almost to the exclusion of other determinants of learning. I think that stress legitimate given the general neglect of that outlook until recently. Yet it must be understood to represent only one element of a more complex process wherein capacity, knowledge, and motivation interact continuously. If the child is not ready cognitively to grasp a particular concept, he will be unsteady in his grasp of related information, and he will also fail to show much interest in the general topic; at the same time, a high level of interest may stimulate the acquisition of knowledge and enhance cognitive capacity. Within limits, the mind stretches to fulfill its intellectual needs. In that sense the approach represented here—cognitive developmental—does not represent anything new so far as education is concerned. To the contrary, if one reads Piaget's writings on education, for example, one is immediately struck by its closeness in spirit to the work of John Dewey.

What, then, can this approach do for us? With respect to practical teaching it can alert us to the sources of specific difficulties the child is likely to experience in learning new information and ideas. Conversely, it may alert us to otherwise unrecognized intellectual opportunities the child is ready for and may teach us how to teach the child to grasp those opportunities. Let me offer an example. We found that at the outset of adolescence the youngster cannot adopt an as-if or conditional attitude to social or psychological phenomena. What is, is, now and forever. Bad people are bad and good people are good. if a law is passed, the child assumes it will stay in place eternally, and he has a hard time understanding that it can be overturned; he has an even harder time grasping that it might be amended, that one part of a law might be retained and another part rejected: it is all or nothing. One of the unrecognized achievements of the adolescent period is the acquisition of the concept of amendment, which is itself part of a larger movement of the mind away from static, either/or conceptions of events, structures, and persons. The more inclusive concept of mutability—for example, of persons changing or institutions in flux, is not easily grasped until middle to late adolescence.

Now it seems to be vitally important that a teacher charged with the instruction of young adolescents would do well to keep that knowledge in mind, particularly since he is charged with teaching dynamic processes—that is, processes involving change—relating to persons and societies. If he is teaching about "laws" he ought, at the least, remain aware that although he may have in mind modifiable statutes passed by a legislative body, the eleven-year-olds he is talking to have in mind something like the Ten Commandments. One might, in general want to avoid certain topics as being too difficult conceptually; or one might try to develop methods of finessing those limitations, doing an end run around them; or one might want to develop methods of overcoming them. That choice is up to the teacher, and to the deviser of curricula.

Probably the most common problem the child experiences in dealing with social and humanistic materials is achieving the proper degree of abstractness; and the most common error the teacher makes come from a failure to recognize the child's problem or to take account of it. As I suggested earlier in this essay, the child has a remarkable mimetic capacity, an ability to use the language of abstractness without genuine understanding. He may use a word like "majority" confidently, yet once we begin to query him we found he has only the vaguest idea of its meaning. Another such word is "government." Another is "election." By the former term, the ten- or eleven- or twelve-year-old child may very well have in mind the governor or the mayor or some other figure cloaked in the robes of authority. The child at the same age may not really know what it means to be "elected." He does not necessarily connect it with an electoral process but confused it with being appointed, or perhaps even being anointed, that is, with having somehow assumed the cloak of authority.

Looking back it is painfully clear that many of our first interviewees did not understand the meaning of these and other terms; nevertheless, it took us a long time to realize it. A youngster would half recognize a term and answer with some appropriate cliche or stark response, one sufficiently plausible to allow the conversation to continue. After we had examined several of these half-on, half-off responses, it would dawn on us that something was not quite right, and we would then discern that there was a concept present somewhat beyond the ken of the youngsters in question.

Why did we not see this immediately? Because the language of social and humanistic disciplines so largely overlaps common parlance, and its principles so largely overlap both common sense and common experience. That is not likely to happen in more technical disciplines. If I quiz a youngster on the properties of the isosceles triangle, his ignorance and confusion will be evident immediately; but if I quiz him about law and government, he may well be able to improvise sufficiently to conceal these states of mind. It is not that the youngster aims to deceive his interlocutor; rather, he may only be aiming to please, to give the answers that are wanted. It is the examiner who does the rest, filling in the gaps and elisions, imputing to the child a level of understanding that is largely in the mind of the beholder.

I might say here, a bit parenthetically, that there seems to be a general tendency among adults to inflate the understanding of the child in these areas. I have no firm idea why this is so, but I've seen this tendency in myself—it took me a long time to accept what the transcripts were clearly saying about the cognitive capacities of the children. I have since seen other adults, with few exceptions, make the same error, generally saying something along these lines; the findings may be true for this particular sample of children but would not be true for the children they knew, referring tacitly to their own children. But if they were to give the interview to their own children, as I do to mine, they would discover, as I did, that the intellectual gestalt that the child offers, via an overall aura of brightness, simply conceals the actual (lower) level of cognitive capacity. I suspect that classroom teachers, who deal with a variety of youngsters through the day, are less likely to misappraise cognitive level quite so often or to the usual degree; yet, I also suspect that the direction of error is similar, that they perceive in the child a more advanced grasp than is truly the case.

That may not be a bad thing, so far as education is concerned, to teach up rather than down in terms of cognitive level. It seems to me it may be helpful to introduce concepts just beyond the easy reach of the youngster. The cautions here are obvious: the concepts should not be too advanced nor should there be so many of them to cope with that the child feels overwhelmed. But keeping these cautions in mind, the teacher ought not to refrain from the use of, let us say, abstract ideas, notions of historical influence, or any of the other concepts or perspectives we have found to be difficult for children at the threshold of adolescence. In some cases, these are helpful in providing a framework—albeit a loose or hazy one—to help the child organize the more concrete ideas he is more comfortable with.

Take as an example the concept of democracy. If a youngster between the ages of ten and twelve is asked to give a definition of that word he will almost certainly be unable to do so satisfactorily. He may address the question in strictly emotive terms, pronouncing on its merits, or he may mix up specific aspects of democratic systems—elections of the legislature or the presidency—with the system itself. Yet, if you extend the conversation with the child, you may find that he has in his grasp most of the specific elements that make up democratic modes of government. It seems to me that the teacher would at this point do well to help the child connect what he can grasp—the more or less concrete aspects of government—to the more general concepts, such as democracy. Often the problem is less in the child than it is in the adult, because adults—almost reflexively—think abstractly when thinking about abstract matters, and when faced with incomprehension, tend to explain things by piling abstraction upon abstraction.

There is another reason why we may want to teach concepts the child is not quite prepared to grasp fully—when they embody values we deem vital. Many American youngsters at this age will, when prompted, use such phrases as "freedom of speech" or "freedom of religion" or—in a few cases—"Bill of Rights." Further discussion reveals that their understanding is incomplete or incorrect in important ways. They are certainly unable to grasp these ideas as abstractions. Yet these concepts are by no means empty of meaning to them. The child may well have an idea of First Amendment rights that is overblown or absurd; he may, for example, think that it means an utterly untrammeled tolerance for freedom of expression; but what is more important is that he has grasped, in however inchoate a fashion, the kernel of the idea of rights, and in time that idea will be placed in context, given resonance, qualified, and so on. What is more important is that some of the American reverence for "rights' has been communicated to the child.

Much the same can be said for the democratic rituals that the child is exposed to as part of his schooling. In trying to discuss the electoral process, some of our children adverted to the elections for student council or class president or most popular boy or girl that they had experienced. It was clear enough that the younger ones had only the dimmest notion of the connections, if any, between those processes and the electoral politics they learned about in the mass media. It is tempting to dismiss those exercises, precisely because they seem to be so hollow, so absent of genuine understanding. But talking to so many dozens of adolescent children myself and reading so many hundreds of their interviews has persuaded me that these presumably empty rituals do have an important socializing effect in habituating the child to the practices of democratic politics.

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## PREPARED STATEMENT OF HON. MICKEY LELAND, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. Leland, Mr. Chairman, members of the committee, I think Flora Lewis put it most succinctly in an op-ed piece in the New York Times last week when she stated: "Perhaps we must admit that human society hasn't evolved to the point of seeking peace in fact as well as in prayer."

The political violence encompassing the globe is most alarming. Daily we read or hear about one more instances of war. We are increasingly becoming immune to the outbreak of skirmishes in Africa, Asia, Latin America and the Middle East as we sit comfortably back and watch T.V. in the sanctions of our homes. Yet, we come quickly to our senses when we discover that children are the ultimate victims of war. We need to see war through their eyes to realistically come to terms about war's effects.

Whether from Belfast, Vietnam, El Salvador, Israel, Lebanon or Ethiophia—to name but a few countries experiencing the devastations of war—children are exhibiting a fierce will to survive, especially in countries continually at war. The children of today appear to be taking a more sophisticated approach toward war.

By losing family and or friends at an early age, the children living in wartorn countries lose their childhood early. They learn to depend on themselves. It has been reported in many cases, that those kids who have suffered most are the ones who are more optimistic about their futures and in some circumstances, they show the greatest amount of charity toward humankind. If this is the case, we all have a lot to learn from these children. Further, we must learn about these children to even begin to understand the kind of adults they'll become.

We must open not only our hearts but our minds to their experiences, and maybe, just maybe, we might see the world in a more realistic light.

Thank you Mr. Chairman. I applaud the efforts of the committee for addressing such a difficult subject.

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## OPENING STATEMENT OF HON. PATRICIA SCHROEDER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Mr. Chairman, I commend you for holding a hearing on an important subject that most of us want to push to the back of our minds. We think that if we don't reflect on it, we will avoid being brought face to face with our own fears about nuclear war.

Yet all of us remember vividly that during the first hearing of the Select Committee the young people from Save the Children repeatedly shared with us their fears of war. The refreshing thing about children is that they so clearly express what they think and feel; unlike adults, they have not yet mastered the art of hiding their thoughts and uncertainties from themselves and others.

The recent tragic downing of the Korean passenger airliner made us all aware how fragile life is and how close we can come to global war and another Holocaust.

Children absorb the events that swirl around them and are either molded by them or destroyed by them. "The Diary of Anne Frank" was a vivid expression of one child's efforts to make sense out of a senseless world. Her fears are our fears and her hopes should be our hopes. She said:

"I simply can't build my hopes on a foundation of confusion, misery, and death. I see the world gradually being turned into a wilderness. I hear the approaching thunder. I can feel the suffering of millions.

Yet, if I look up into the heavens, I think that it will all come out right one of these days; that this cruelty will end, and that peace and tranquility will return again."

Although these words were written more than 40 years ago by a young girl in hiding in the Netherlands, they express the longings that we all have today for a peaceful world.

I am delighted to welcome the children who have joined us today and look forward to the testimony to be presented by our other witnesses.

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## OPENING STATEMENT OF HON. JERRY M. PATTERSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. Chairman, I would like to commend you for arranging today's hearing on "Children's Fears of War." As we continue to pursue the complex problems which children in today's world face, I believe this topic is timely and appropriate. The fear of war in a nuclear age presents a very real and imminent danger to adults and children alike.

This issue may be more difficult than others, because it touches on the irrational. It presents the ultimate moral dilemma, and it forces us to consider the "unthinkable."

As policymakers, each of us bears the responsibility for making the world a better place in which to live. We must weigh practical considerations, and we must measure our priorities carefully. In the end, we are accountable for the consequences of our decisions.

I mention this fact, because I believe the atmosphere in which we live and in which we nurture our children is very important. The physical environment is equally as important as the psychological environment. Where children are not provided proper nourishment, their health is fragile and their bodies are weak. Where children are not given stimulus and educational opportunity, they lack incentive and do not learn. Likewise, where children are not given hope, their dreams shatter.

Today's hearing is very important. It will give us an opportunity to hear directly from young people about their thoughts on what it means to grow up in a nuclear age. I have often considered how times have changed and how children today view the attempts of world leaders to control the arms race. What meaning do the words SALT or START have for them? Do they understand the serious nature of decisions which are being made about the future of the world? Do they feel threatened by the possibility of senseless destruction or annihilation of the world?

Today's hearing will be very enlightening, and for those of us sensitive enough to listen to the voices of the future, I believe, we may better understand and consider the measure of our priorities today. Thank you.

# Threat in the Nuclear Age:
# Childrens' Responses to the Nuclear Arms Debate

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## Abstract

Concern about the psychosocial effects of the currently increasing nuclear arms race has been raised in a 1982 American Psychiatric Association Task Force report. Seventy-five intermediate school children aged 11 to 12 years responded to a questionnaire in Salt Lake City, Utah, USA, focusing on various aspects of the nuclear arms debate. Children were aware of nuclear issues by age 12 and expressed a variety of perspectives on the realities of nuclear threat and implications for the future. Most disturbing was a pervading sense of fatalism.

The growing governmental, public and media discussion of issues relating to the nuclear arms race is a fact of daily life in the United States of America. Hardly a day passes without an editorial commentary, newspaper report, or television programme dealing with some aspect of the nuclear arms race.

Educators, psychologists and mental health professionals have realized, for a number of years, that children have not grown up in a nuclear vacuum and are cognizant, on some level, of the discussions currently being conducted. This realization has stimulated a broad spectrum of activities from concerned professionals: examinations of the responsibility of educators and physicians to address aspects of the nuclear arms race (Cassel and Jameton, 1982), commentaries on psychological stereotyping in international relations (Mack, 1982), studies of childrens' attitudes (Beardslee and Mack, 1982), videotapes of classroom interviews on the nuclear threat (Chivian and Snow, 1982), and the development of age-appropriate curricula and educational programs designed to assist childrens' learning about aspects of the nuclear arms race (Snow, Note 1).

The crux of these recent concerns about the developing attitudes of children and youth in the age of nuclear anxiety has been eloquently expressed by Escalona (1982):

> To the extent that the present functioning of society conveys to children a picture of passive and evasive withdrawal, of fear and belligerence toward other nations, and of not even trying to combat a host of evils both large and small - to that extent the effects of the nuclear peril upon us also affects the development of our children. (p. 607)

This reasoned argument sounds almost like a call of warning for adult society to examine its own attitudes and action in order to understand those of our children. No one, either inside or outside government, is freed from responsibility according to Escalona. It is in the spirit of understanding and education that this paper is written. It reviews comments on personality development in the light of nuclear peril; information from previous studies on children's attitudes towards nuclear issues; results of a study in Salt Lake City, Utah; and makes suggestions for future academic and educational activities in the field.

## Personality Development in Children in the Light of Nuclear Threat

Children of all ages are aware of their environments. Their interpretations of reality depend both on their cognitive and emotional levels and the manner in which the world appears to them. Behaviours and attitudes of adults are often mimicked by children. Thus are notions about sexuality and social relations, for example, internalized. Even if such topics are never formally discussed, many children have formulated thoughts and feelings about them.

Attitudes towards the future and politics are no exception to this model. Escalona (1982) suggests that:

> ...young children, by and large, tend to see their own country as ideal, far superior to all other, very powerful and protective. With advancing age presidents and prime ministers are no longer seen as infallible superheroes, but a naive trust in the country generally remains

> unshaken. (p. 601)
>
> ...they interpret national and international affairs by drawing on their personal experience. (p. 602)

## Studies of Children's Attitudes to Nuclear Issues

Most of the studies of attitudes of children to nuclear developments have been conducted through the use of questionnaire and interview. Two of the earliest were reported in 1965, stimulated by events surrounding the Berlin and Cuban Missile crises. In a volume entitled, Behavioral Science and Human Survival, Escalona (1965) focused on the detrimental effects of nuclear concerns on normal personality development while Schwebel (1965) considered the difficulty of ascertaining whether pathological attitudes and behaviours resulted from fear or denial expressed by students in his survey.

The American Psychiatric Association Task Force on Psychosocial Aspects of Nuclear Developments undertook a major study of children's attitudes from 1977-1980 (Beardslee and Mack, 1982). Their operating assumption was that "youth were relatively isolated from the nuclear debate" (Beardslee and Mack, 1982, p. 73). The findings are somewhat difficult to interpret since varied populations were studied and different questionnaires were used during the two years of the study. Certain conclusions about children's views of the nuclear threat were reached based on a qualitative and quantitative analysis of the 1,151 questionnaires completed by children ages 10-18.

The authors of the American Psychiatric Association Task Force felt strongly that the most significant finding of their study was that there "is a general unquiet or uneasiness about the future and about the present nature of nuclear weapons and nuclear power" (Beardslee and Mack, 1982, p. 89). Many children said that they became aware of nuclear issues before the age of 12 and that their sources of information were the media, the classroom, and parents. They expressed a degree of pessimism. seventy per cent suggested that the United States would be ruined as a result of a nuclear attack.

Responses to a number of other questions indicated ambivalence. There was great disagreement both about the meaning and value of civil defense. This was also evident in responses to a question asking, "What does the word 'nuclear' bring to mind?" (Beardslee and Mack, 1982, p. 75). Most children tended to make associations reflecting thinking both about nuclear weapons and nuclear energy.

The report speculates about the effect of such disquietude, ambivalence and pessimism on normal healthy psychological development and urges that education about nuclear issues is essential to assist children in handling their fears.

## The Salt Lake City Study

In October 1982 a questionnaire was completed by 75 intermediate school children in Salt Lake City, ages 11-12 years, prior to their viewing a videotape and hearing a lecture on the medical and environmental consequences of nuclear explosions. The questionnaire was developed by an educational project, (Facing History and Ourselves, Note 2) and was similar to that used in the American Psychiatric Association study. The children had received no formal education about nuclear issues and thus their responses may be viewed as relatively fresh and undirected.

Table 1

| Question | Response | | |
|---|---|---|---|
| 1. List any ideas or images that come to you when you hear the word "nuclear". | 70 | listed only weapons | |
| | 5 | listed weapons and nuclear power | |
| 2. How old were you when you were first aware of nuclear issues? | Age | Number of children | |
| | 7 | 2 | |
| | 8 | 8 | |
| | 9 | 11 | |
| | 10 | 20 | |
| | 11 | 16 | |
| | 12 | 9 | |
| | Don't know | 6 | |
| | No answer | 3 | |
| 3. What do you know about civil defense? | 21 | "nothing" | |
| | 13 | "don't know" | |
| | 41 | no response | |
| 4. Do you think that nuclear war will occur in our lifetime? | 40 | "yes" | |
| | 20 | "maybe" or "don't know" | |
| | 13 | "no" | |
| | 2 | no response | |
| 5. Do you think you could survive a nuclear attack on: | our city | country | world |
| "no" | 59 | 31 | 28 |
| "yes" | 10 | 25 | 35 |
| "maybe" or "don't know" | 6 | 19 | 12 |
| 6. Do you think the threat of nuclear war is becoming: | greater | remaining same | diminishing |
| | 56 | 16 | 4 |

Table 1 delineates the children's responses to questions 1-6. With the exception of question 1, in which the specific "ideas or images" were categorized as either weapons or non-weapons related by the investigator, all responses to these questions were objective.

Question 7, on the other hand, necessitated purely subjective responses. All 75 children responded to a question asking "How has the threat of nuclear war affected your thinking about the future?" Some suggested "I may not be able to see the future", "I'm not worried nor shall I be because we have to live now", and "That I'm afraid to grow up". 45 students responded to a similar question concerning their thinking about "the future". They indicated, for example, that "We may not have enough time" and that "It is going very quickly". 17 students suggested that the threat of nuclear war had not affected their thinking about "marriage", while 58 commented specifically with thoughts like "I don't think I'll have enough time" and "I thought I wouldn't be able to have one". Finally, 49 children replied that their thinking about "children" has been affected, two saying "I am afraid what they might be subject to" and "I would not want to put a child in danger". 26 children left this entry blank.

The last question in the survey asked the children which topics they wished to know more about. They indicated the need for more information on the effects of nuclear war (61%), Soviet-American relations (55%), how students can respond to the nuclear threat (44%), human dimensions of

Nuclear war (55%), nuclear weapons and energy resources (31%), physics of nuclear weapons (29%), how adults are responding to the nuclear threat (28%), economic effects of the arms race (24%), and the nuclear arms race and arms control (17%).

## Analysis

The most logical comparison to make with the Salt Lake City data is to the larger American Psychiatric Association study (Beardslee and Mack, 1982). Nearly all of the children in the Salt Lake City study had ideas or images about the word "nuclear" that had a pessimistic or negative tone. The few references to nuclear power and peaceful uses of the atom suggest that these children have been primarily influenced by the public debate about nuclear arms. The local concern, discussion, and activity concerning the MX missile deployment (considered at one time to be destined for Utah) may have been a major factor in this regard. The immediacy of the MX may have skewed public attitudes towards thinking about nuclear weaponry rather than nuclear power and waste dumps, despite the fact that the latter two issues have drawn much local media coverage in the past few years.

Like the American Psychiatric Association study most children seem to acknowledge awareness of nuclear issues by the age of 12 years and are appropriately confused by the meaning of civil defense. It is interesting to note that this awareness of nuclear issues has taken place in the absence of formal nuclear educational programs for children in the United States. Their cognizance has apparently come from other sources.

Children in general, felt they would be less able to survive a nuclear attack on their own city than they would an attack on the country or the world. This notion may reflect some realistic assessment of the effects of a nuclear explosion on one delimited area and an inability to generalize or even comprehend a more extensive attack. The parochial focus of children's understanding may be influenced by several factors: newsreel photos and films of Hiroshima and Nagasaki have demonstrated the devastation brought to two cities in Japan rather than the entire country; public civil defense efforts have focussed on a particular locale (e.g. community specific shelter and evacuation plans); educational forums and television often paint a picture of a one megaton bomb falling on a particular city; and the basic conceptual difficulty of adults and children alike in comprehending a worldwide nuclear holocaust.

Fatalism and increasing concern on the part of children is clear in their sense that the dangers of nuclear war were increasing. This may have made it difficult to think about the effects of nuclear threat on specific aspects of their future. Children commented more freely, in this regard, on the future and the world than on time, marriage, or children. Concepts of time, marriage and children may seem too distant to consider adequately.

Children's responses to the question dealing with plans for future educational programs clearly defined their desires in both personal and human terms. They were very interested in the human effects of nuclear war and wanted to know what they could do to prevent it. Interestingly, their concern about Soviet-American relations seems of paramount importance. This may be a testimony to their perspicacity in defining an underlying seminal issue in the debate about nuclear weapons and their mirroring of adult attitudes. Once objective facts about nuclear explosions are understood, adults often raise similar questions: What can

I do? What about the Soviet Union?

## The Future

In very basic terms studies of children's attitudes towards nuclear threat need to answer three simple questions. Do children have undue anxiety and concern as a result of their nuclear fears? If they do have anxiety what is the impact on their attitudes and behaviour? If there is a significant impact how should it be handled? Each question must be answered before proceeding on to the next.

American investigators indicate that the problem exists, at least in the United States. Such was not only the conclusion of the American Psychiatric Association study (Beardslee and Mack, 1982), but also the anecdotal data from Chivian and Snow (1983) who have collected videotaped interviews with children in various schools in Massachutsetts. The universal utility of such information, however, is unclear since large cross-cultural studies are yet to be completed. The most extensive study currently being undertaken is in Finland (Solantus, Note 3)

There is less agreement on the impact of the problem on children's attitudes and behaviour and many have warned about drawing premature conclusions about nihilistic behaviour as a result of fatalistic anxiety. Nuclear fears need to be placed into a developmental and contextual framework so that their import can be adequately assessed. A recurrent theme in the videotapes of Chivian and Snow (1983), for example, deals with fear of abandonment in the eventuality of a nuclear war, a much more basic childhood fear than vaguer anxiety about nuclear annihilation. Another consideration is the fact that young children, particularly, tend to be concrete about their fears and thus may relegate anxiety about nuclear annihilation into their more simplistic fear of death in general, from whatever cause.

The answer to the third question, how to deal with effects of nuclear anxiety on behaviour and attitudes, is more problematic. Age appropriate education about realistic nuclear consequences may be too simple an answer. Some children are not ready for a factual approach and may need to work through their fears rather than have then intellectually assuaged. Furthermore, one could argue that fear and anxiety is an entirely appropriate response in the face of nuclear threat and may be a prime motivating factor for action. It permits thinking about the unthinkable, a necessary cognitive step for both concerned children and adults to take.

Once it is decided to examine these questions by some research mode, questions of methodology need to be addressed. The attitudinal studies completed to date have suffered from similar problems. Sample sizes have been small and not comparable for various ages. Different ages and school settings have been combined in analyses. The questionnaires utilized have left too much room for open-ended responses rather than a more objective, and thus more easily codifiable, answers to questions. Interviews conducted may involve observer-researcher bias. All of these factors have led to essentially descriptive studies. Future cross-cultural research in this area needs to utilize a more closed-ended tool applicable to a variety of settings.

There has recently been some evidence that such international collaborative efforts to examine attitudes of children towards war, nuclear war in particular, are underway. In March 1983 a symposium was held in

Finland on the general topic of "Children and War". The diversely ranging presentations have just been published (Kahnert, Pitt and Taipale, 1983). At the 3rd Congress of International Physicians for the Prevention of Nuclear War, June 17-22, 1983 in The Netherlands, one of the working groups focussed on "The Effects of the Threat of Nuclear War on Children". It is hoped that scholarly research conducted for future similar meetings will add not only important information about the issue but also a degree of academic credibility, particularly needed in behavioural-attitudinal research.

The final aim of these efforts must be to ultimately understand the nature, scope and meaning of children's attitudes towards the nuclear arms race. If negativism and fatalism seem predominant amongst children, then our ability to respond to children's emotional and intellectual needs in this regard may be a demonstration of our concern for ourselves and our world. We may need to consider more generic issues than simply those of nuclear war: conflict resolution, stereotyping of enemies, images of violence in our societies. Our willingness and ability to do this may, as Escalona (1982) suggests, "also be the ultimate test of the trustworthiness of adult society" (p. 607). If we are successful the words of a 13 year old girl, responding to one of the questions in the Salt Lake City questionnaire, may no longer haunt us or our children. Her response to the question "How has the threat of nuclear war affected your thinking about the future?" was:

> I don't really want to think of it and sometimes
> just run away from it. Just lots of sad things
> that I can't explain in this little square.

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## Reference Notes

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